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CALIFORNIA STATE BOARD OF HEALTH

MONTHLY BULLETIN

Dental hygiene in children has become an integral part of the public health program. California is fortunate in having made provision for a division of dental hygiene in the state board of health. This division will be organized during the summer months.

DENTAL HYGIENE AND PUBLIC HEALTH
NUTRITIONAL VALUE OF SOFT DRINKS
SHIPWORKERS' CAFETERIA

JULY, 1921

12031

V.17:1

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CALIFORNIA STATE BOARD OF HEALTH

MONTHLY BULLETIN

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MONTHLY BULLETIN

CALIFORNIA STATE BOARD OF HEALTH

Entered as second-class matter, August 15, 1905, at the post office at Sacramento, California, under the Act of Congress of July 16, 1894. Acceptance for mailing at the special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 27, 1918.

SENT FREE, ON REQUEST, TO ANY CITIZEN OF CALIFORNIA

WALTER M. DICKIE, M. D., Secretary . . . Executive Officer
GUY P. JONES . . . . Editor

California Tuberculosis Death Rate Falling Fast.

There were 5397 deaths from tuberculosis in California during 1920, making the tuberculosis death rate for that year the very lowest in the history of this state. The numbers of deaths from this disease per hundred thousand population was 155.0. In 1906 the tuberculosis death rate per hundred thousand population, for California, was 218.0. Almost one-fourth of all deaths from tuberculosis last year were in persons who had resided in California for less than five years and little more than 10 per cent of those dying from this disease lived in this state less than one year. Migration is, therefore, a factor in making the tuberculosis death rate in California a little higher than the death rate for this disease in most other states. During the past ten years there have been no marked fluctuations in the actual numbers of deaths occurring from tuberculosis each year. The increase in population has tended to lower the death rate, however. The numbers of deaths from tuberculosis and the rates per hundred thousand population for the years 1906 to 1920, inclusive, follow:

Year	No. deaths tuberculosis	Death rate per 100,000 population
1906	4437	218.0
1907	4607	216.8
1908	4565	206.1
1909	4673	202.6
1910	4872	203.3
1911	5114	205.5
1912	5128	198.8
1913	5402	202.2
1914	5320	194.5
1915	5551	192.5
1916	5267	178.8
1917	5457	179.6
1918	5888	180.4
1919	5679	168.2
1920	5397	155.0

* * *

Hard Times for Makers Of Fraudulent Medicines

The Bureau of Chemistry of the United States Department of Agriculture is active in the prosecution of manufacturers of patent medicines for which extravagant, false or fraudulent claims are made. In service and regulatory announcements, issued May 20, out of fifty notices of judgment under the Foods and Drugs Act, thirty-two of these judgments have to do with patent medicines. These were for the most part, cough syrups, alleged cures for venereal diseases, kidney trouble, nervous prostration, etc. Most of these violations constituted mislabeling and the following paragraph gives the reason for the condemnation and the destruction of the products:

"Misbranding of the article was alleged in the libel for the reason that the above-quoted statements, regarding the curative and therapeutic effects of the article, appearing in the labeling, were false and fraudulent as the article contained no ingredient or combination of ingredient capable of producing the effects claimed."

This work in the protection of the gullible is most commendable. There seems to be a tendency for unscrupulous manufacturers to place their fraudulent products on the market in spite of the fact that most newspapers refuse to take their advertising. It is unfortunate that the ignorant and sick should be made victims of unscrupulous patent medicine manufacturers but continued activity on the part of the state and federal authorities will soon bring this practice to an end.

* * *

A. P. H. A. to Hold Its Fiftieth Annual Meeting.

The fiftieth annual meeting of the American Public Health Association will be held at New York City in November, 1921. The date which is tentatively announced is November 14-18.

It is interesting to note that Dr. Stephen Smith, the founder and first president of the association, is now entering his ninety-ninth year. He is still active and vigorous and it is expected to celebrate his approaching centennial together with the semi-centennial of the association.

The first organization meeting of the association was held in New York City on April 18, 1872, and that is one of the reasons for selecting New York City for the celebration of the semi-centennial. Other considerations are the convenience to foreign representatives and to Dr. Smith, who lives in New York City; and especially a plan to conduct demonstrations of public health administrative methods in the laboratories, executive offices, garbage disposal plants, and similar centers of public health interest, in which New York City is unsurpassed.

It is expected to present in connection with the celebration a review of the progress of the various branches of public health within the last fifty years. The sectional program will include public health administration, vital statistics, laboratory, food and drugs, sociology, sanitary engineering, industrial hygiene and child hygiene.

* * *

Upholds Right to Use Animal Experimentation.

The American Association for the Advancement of Science has adopted the following resolutions on animal experimentation:

WHEREAS, The American Association for the Advancement of Science includes sections on Physiology, Experimental Medicine and Zoology; and

WHEREAS, Advancement of knowledge in these sciences, which is dependent upon intensive study of living tissue, is inevitably followed not only by amelioration of human suffering, but also by a lessening of animal disease and by substantial economic gain and by conservation of the food supply; and

WHEREAS, This association is convinced that the rights of animals are adequately safeguarded by existing laws, by the general character of the institutions which authorize animal experimentation and by the general character of the individuals engaged therein; therefore be it

Resolved, That this association agrees fully with the fundamental aim of those whose efforts are devoted to the safeguarding of the rights of animals but deprecates unwise attempts to limit or prevent the conduct of animal experimentation such as have recently been defeated in California and Oregon, for the reason that such efforts retard advance in methods of prevention, control and treatment of disease and injury of both man and animals and threaten serious economic loss; and be it further

Resolved, That a copy of these resolutions be included in the official records of this association, and that copies be sent to the national congress, to the legislatures of each state in the union and to each member of the association.

* * *

Typhoid fever was spread in South Carolina by undisciplined workmen and camp followers of the army in 1918. Since then the state authorities have reduced the disease 40 to 58 per cent in certain counties by mere sanitary education, says the United States Public Health Service. If there, why not elsewhere?

Venereal diseases are diseases, not crimes, says the United States Public Health Service. Many people have been infected innocently or in very early youth. The incidence of the disease in boys of seventeen is very high.

Professor Raymond Pearl, of the United States Public Health Service, has discovered that both the suddenness and the destructiveness of the first flu epidemic coincides significantly with the normal death rate from heart diseases in many American cities. It does not so coincide with the death rate of any other important disorder. The inference is obvious.

If treated promptly by reliable doctors or at public clinics, venereal diseases can be cured, says the United States Public Health Service. Patent medicines bought without competent advice often do great harm. The same is true of the work of most doctors who advertise that they cure "men's" diseases.

Many lives and much property are lost every year because of accidents due to venereal disease, says the United States Public Health Service. So great in fact are these losses that the National Safety Council has issued a bulletin on them. For instance, four serious recent railway wrecks were traced to employes who failed because they were suffering from paresis, which is a form of syphilis.

Opinions have differed as to the fatigue-causing powers of different occupations; and many efforts have been made to establish a scale for definitely ranging them. A recent report of the United States Public Health Service states that the amount of sulphur excreted through the kidneys of men engaged in a wide range of work has been found to coincide very closely with the relative arduousness of the work, as estimated by four good observers.

Both syphilis and gonorrhea may cause blindness, says the United States Public Health Service, the first usually through inheritance, and the second by infection of the new-born child. The latter may become blind in a single day if the attending doctor has failed to cleanse its eyes with a few drops of a 1 per cent solution of silver nitrate. Most states have for some time required this treatment. Six more—Idaho, Missouri, Nevada, New Mexico, Oklahoma and Texas—passed laws requiring it at their latest legislative sessions. Doctors failing to obey these laws are liable for damages if blindness to the new-born results. Insistence on the treatment will practically remove this source of blindness.

United States Public Health Service doctors are studying how to prescribe for streams that are suffering from over contributions of sewage. When once a quantitative relation between the pollution on the one hand and the population, industrial wastes, stream flow, and temperature on the other has been established the stream doctors will be better able to prescribe the sort of tonic that will restore the stream to health and make it available for drinking or industry or both.

DENTAL HYGIENE AS A PUBLIC HEALTH ACTIVITY.

By GUY S. MILLBERRY, D. D. S., Dean, College of Dentistry,
University of California.

The Problem.

Dental disease is the most prevalent of all human disorders, 90 per cent of the population being affected. It is primarily a children's disease and is preventable. The best, easiest, and quickest solution of the problem is by means of dental hygiene.

With these statements, which are easily corroborated, before us is a premise. Let me elaborate upon them in greater detail in analyzing them and proposing a solution of the problem.

Very few individuals and no communities would consider a child with a decayed tooth as an unhealthy child, and yet the best authorities contend that such a condition is just as unhealthy as diseased tonsils or adenoids, an abscess in the ear or skin eruptions. The reason why we do not take cognizance of this all-prevalent disease is because we seem to pursue our daily activities with customary vigor and industry even though we may harbor a number of decayed or diseased teeth in our mouths.

The child at play in the parks or on the streets gives every evidence of healthful energy, so much so that we frequently comment favorably on it.

Insidious Onset.

Few of us realize the insidiousness of this disease. Beginning as it does in early childhood frequently as soon as the teeth are fully erupted the decay of the teeth proceeds at a more or less rapid rate until the pulps which supply nourishment to the tooth from within become infected and the alveolar abscess or "gum boil" develops as a result.

Likewise the accumulations of calculus or "tartar" on the teeth causes the gums to recede and the bone to be absorbed with that very prevalent condition of pyorrhoea developing later in life. In many instances the impaired general health in middle life is directly traceable to this primary decay or deposits which had their beginning thirty or forty years before.

The ravages of the disease not only manifest themselves in a septic condition of the oral cavity and an inability to masticate the food properly with consequent disturbances of the digestion, but we find frequently that serious heart lesions, rheumatism and other systematic disorders clear up when the diseased mouth conditions are corrected.

All these conditions are preventable, for by means of efficient daily care the deposits do not accumulate on the teeth, and the teeth do not decay, for the cause of such conditions is removed several times daily. While it is deemed necessary to consult the dentist at regular intervals, once or twice annually for observation, and such treatment as the individual is unable to give to himself, the burden of the task rests with the individual. Ninety-five per cent of the responsibility belongs to the patient, 5 per cent to the intelligent careful dentist.

Legislation Necessary.

In public health matters generally it has been necessary to enact legislation to eradicate disease and prevent its spread. Quarantine laws, sanitary regulations, such as water, milk, and food inspection are the forerunners of this mandatory legislation. They were imperative because the public at large was uninformed and the authority of the state was invoked to protect the people against the dangers of communicable disease.

In recent years the tendency in public health has been to educate the people in such matters, the results of which are manifested in a marked reduction of certain types of disease. We rarely hear of an operation on children for the removal of tubercular glands of the neck. The work of the organizations in campaigning against this disease has reduced its prevalence markedly in children. The child hygiene and social hygiene movement will undoubtedly bring about corresponding results in a very brief time in their respective fields.

That the dental hygiene movement is necessary is proven (1) by the great prevalence of the disease and (2) by the improvement in the health of the children and economic saving to the community wherever it has been established.

The prevalence of the disease is already established by surveys in all parts of the civilized world. It is just as common in fact frequently more common in districts where the children are supposedly better cared for and have a better home environment than in the poorer districts. By way of illustration the Hudson River Heights district in New York City shows a high percentage of cases than the east side, and Palo Alto, California, a community above the average in wealth, intellectual attainments and facilities for service, disclosed the fact in a recent survey that 93 per cent of the children had decayed teeth with an average of 4 cavities in each child's mouth. This survey included all the children in the public schools.

Economic Results.

As to the economic value, the average cost of educating a child in the primary and grammar grades throughout the United States is $53 per year. Whenever it becomes necessary for a child to repeat a year for any reason whatsoever the per capita cost of educating that child is doubled. The law makes it necessary for the child to attend school and the school authorities insist that the scholarship records justify promotion.

The percentage of retarded pupils in various large cities ranges from 16 to 50. It is not uncommon to find an average of 40 per cent of retardations in a progressive community.

This means that 40 per cent of the total enrollment of school children in that community times $53 per capita is the coast of reeducating the retarded pupils in their respective grades.

It has also been definitely proven that these retardations are due primarily to correctible physical defects, such as decayed teeth, the most prevalent of all tonsils, adenoids, defective eyesight and hearing, malnutrition, etc. In many cases malnutrition is directly traceable to defective or irregular teeth. In Bridgeport, Conn., where dental hygiene has been practiced in the schools for six years, three striking results are recorded (1) the percentage of decayed teeth in the mouths of children has been reduced 37 per cent, even during the stress of the war emergency; (2) the number of retarded pupils has been reduced 50 per cent; and (3) the city had the lowest mortality rate of any city of its size in the United States during the pandemic of influenza in 1918. The health authorities maintain that because of the mouth hygiene teaching in the schools and of its influence being carried into the homes by the children, the people were in a more receptive mood for the adoption of precautionary measures in combating influenza than they might otherwise have been. Other evidence to corroborate these findings is to be found in other cities.

A Health Problem.

The solution of the problem is in health education. It is unquestionably a health problem even though the most desirable place for inaugurating it is in the public schools. It, along with the treatment of other correctible defects, is closely linked with the problem of communicable disease.

In order that the people especially of a given locality may be informed as to the existing conditions it is often times necessary to make a survey. The gathering of statistical data of this nature is important not only for purposes of determining existing conditions but also for purposes of comparing them with future data to be collected wherever corrective measures may be adopted. "Statistics" are the life-blood of the public health movement.

Following this, it is desirable that information should be disseminated regarding the dental hygiene movement, particularly regarding the cause and eradication of dental disorders. Pamphlets, posters, charts, lectures, demonstrations, exhibits and cinematograph films should be available for use in every school at periodic intervals.

Each year the lesson in some form or other should be repeated not only for the benefit of the newly enrolled children but also to fix firmly in the minds of the older children the necessity for unremitting daily care.

Make Information Available.

For such purposes a bureau of information should exist in each state which would serve as a clearing house for the detailed work of this activity. It is even more important than many other phases of health activity first because virtually 100 per cent of the people above the age of three years should have dental advice and care once or twice a year and second because no matter how carefully our food is prepared and our milk and water supply is protected the results are ineffectual if they must pass through a septic mouth into the body.

Dental hygiene presents one of the greatest instrumentalities we know of to reduce the prevalence of many diseases, relieve suffering and promote human efficiency and happiness.

PROMOTING THE HEALTH OF THE EMPLOYEE: HOW THE BETHLEHEM SHIPBUILDING CORPORATION PROVIDES GOOD FOOD, WELL SERVED, FOR ITS SHIPBUILDERS.

The Bethlehem Shipbuilding Corporation has provided cafeterias for its employees in the Union plant at San Francisco and in the Alameda plant. The provision of these cafeterias, in which are installed the most modern equipment and which are faultless from the standpoint of sanitation, has done away with scores of insanitary eating places which formerly flourished in the vicinity of the shipyards. Credit for the removal and condemnation of the miserable restaurants and lunch counters that during the war sprang up like mushrooms is due to the efforts of Dr. Wm. C. Hassler, Health Officer of San Francisco, Dr. Kirby C. Smith, Health Officer of Oakland, Dr. A. Hieronymus, Health Officer of Alameda, and to the United States Public Health Service, Dr. William T. Harrison, in charge. While this article deals with the improvement of conditions at the Union plant in San Francisco similar improvements have been effected in Oakland and Alameda shipyards.

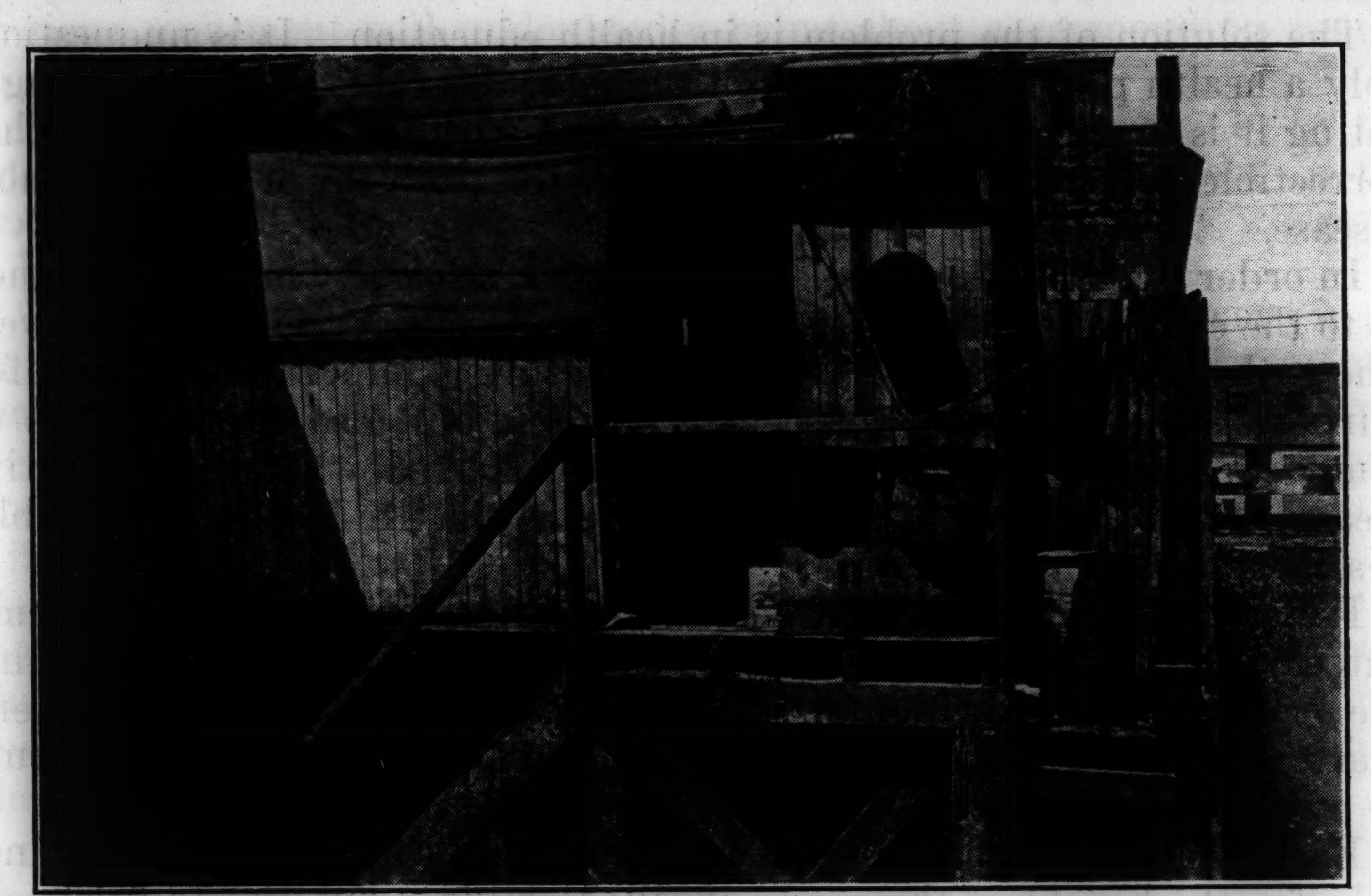


FIG. 1. Rear of restaurant where shipyard workers ate before the company cafeteria was established. Accumulations of filth and lack of all sanitation made this place unfit for the preparation and serving of food.

When the shipbuilding program was at its height there were about 10,000 men employed in the Union plant. Scores of ramshackle buildings on the surrounding streets were turned into restaurants and lunch houses. Because of the speeded-up shipbuilding program during the war the company could allow but forty minutes for lunch. Many of the workmen had to walk many blocks to a lunch counter, allowing them sufficient time only to eat a couple of sandwiches and drink a cupful of coffee. The rush at the noon hour was tremendous. Shipworkers poured out of the gates in a steady stream, swarming about the temporary counters where box lunches, sandwiches, etc., were sold in unbelievable quantites. The men would seat themselves on the street curbing or on the sidewalk alongside the tumble-down buildings, bolt their lunches and hurry back to work. Aside from the fact that the workmen were unable to perform a solid day's work without having a suitable lunch there was the much more important danger due to the insanitary conditions under which these lunches were prepared, sold and consumed. The illustrations tell the story fairly well but unfortunately the pictures cannot depict the odors nor the dirt and flies which were found nearly everywhere in the vicinity. Fruits and vegetables, in some places, were stored in the toilets; rats were extremely prevalent and foods were cooked and prepared in dirty and foul-smelling kitchens. Many of the individuals conducting these places became rich in a few months. The health officers soon became active and the proprietors of these eating places were made to comply with the necessary requirements for making their places sanitary or were forced to close up. The owners of the buildings were required to make their property conform to the requirements or risk condemnation proceedings. It became necessary to condemn about sixty of these ramshackle buildings, which were finally demolished.

FIG. 2. Milk, vegetables and other foodstuffs stored in close proximity to open toilet, and accessible to flies and rodents. This practice was common in restaurants catering to shipworkers.

It was necessary that lunch places be provided for the workers and through the cooperation of the officials of the shipbuilding corporation the commodious and modern cafeteria with all of its equipment was provided by the corporation. There are five entrances to this building, each of which can receive about 25 men a minute, an aggregate of 125 every 60 seconds. Since the cafeteria seats 2000 persons it is not difficult to serve the 8000 employees in a short space of time. In one section a 35 cent luncheon is provided and in another section a 25 cent lunch; in still another section food is served a la carte. Most of the

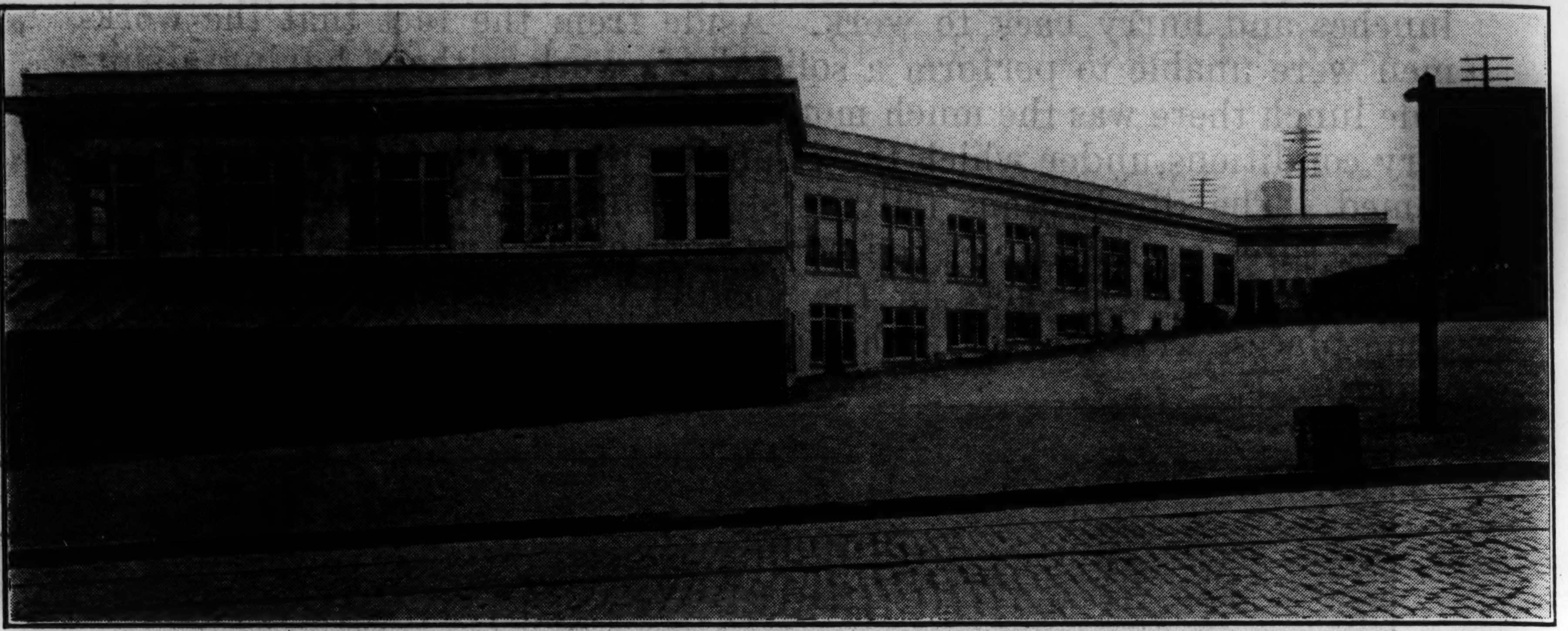


FIG. 3. Exterior of cafeteria built by the Bethlehem Shipbuilding Corporation in its Union Plant at San Francisco, for the benefit of its employees. This cafeteria is run upon a cooperative basis and food is served at cost.

FIG. 4. Exterior of a typical restaurant in the vicinity of the Bethlehem Corporation's plant, where hundreds of employees ate before the cafeteria shown on opposite page was constructed.

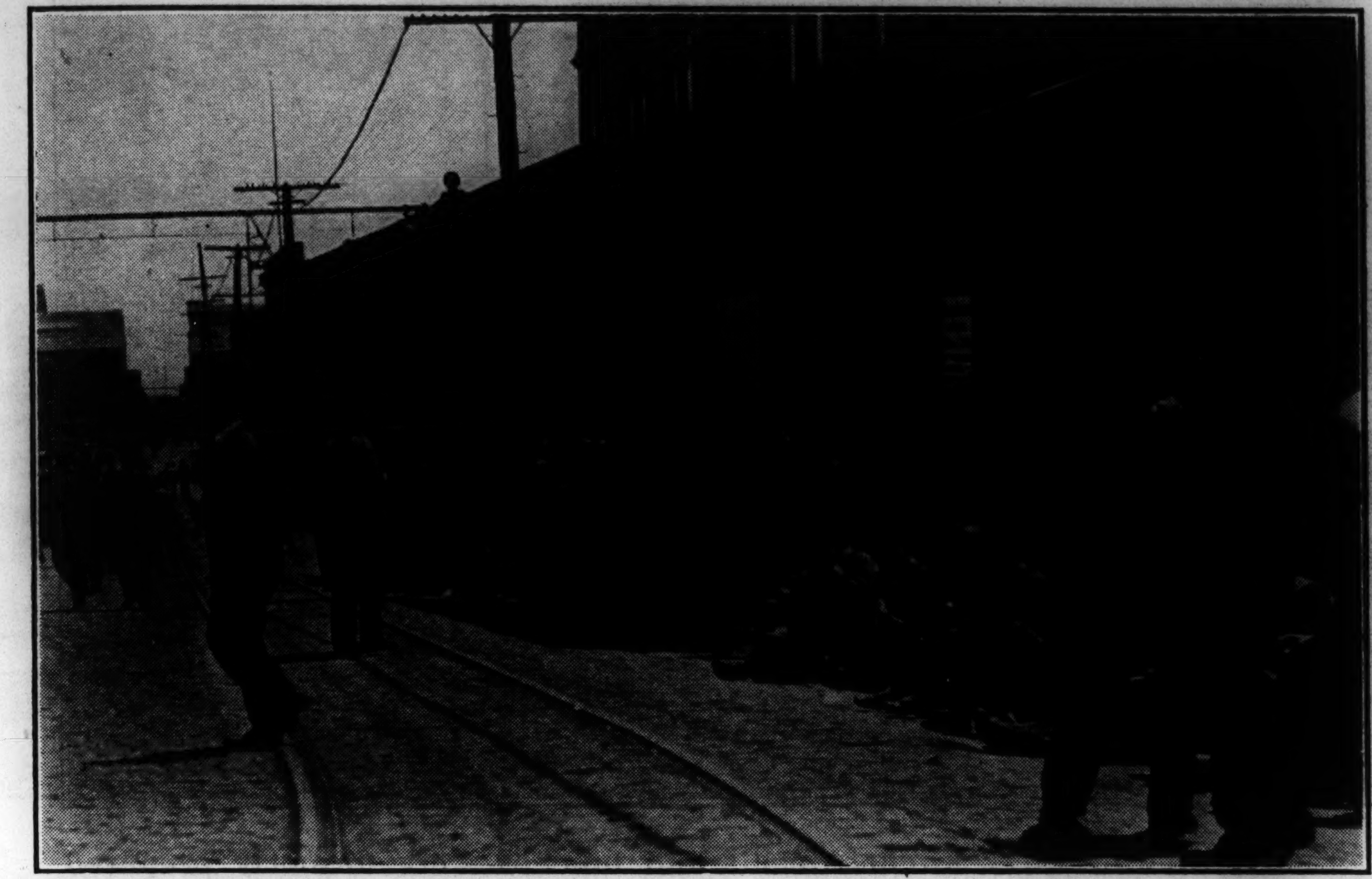


FIG. 5. Lunch hour in the street opposite the Union shipyards before the new cafeteria was built. Thousands of employees purchased cold lunches produced under insanitary conditions, consuming them while standing in the street or sitting on the street curbs.

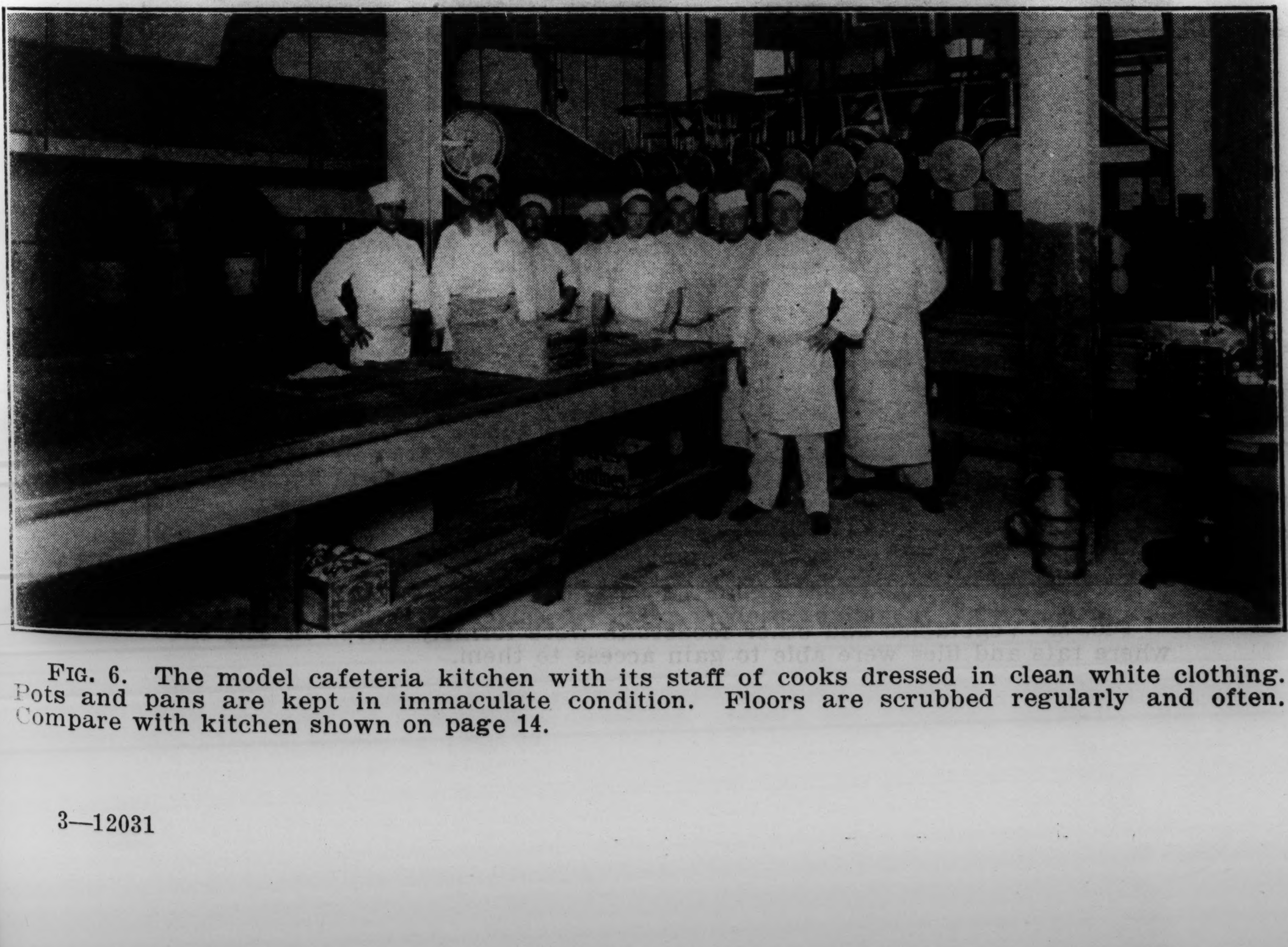


FIG. 6. The model cafeteria kitchen with its staff of cooks dressed in clean white clothing. Pots and pans are kept in immaculate condition. Floors are scrubbed regularly and often. Compare with kitchen shown on page 14.

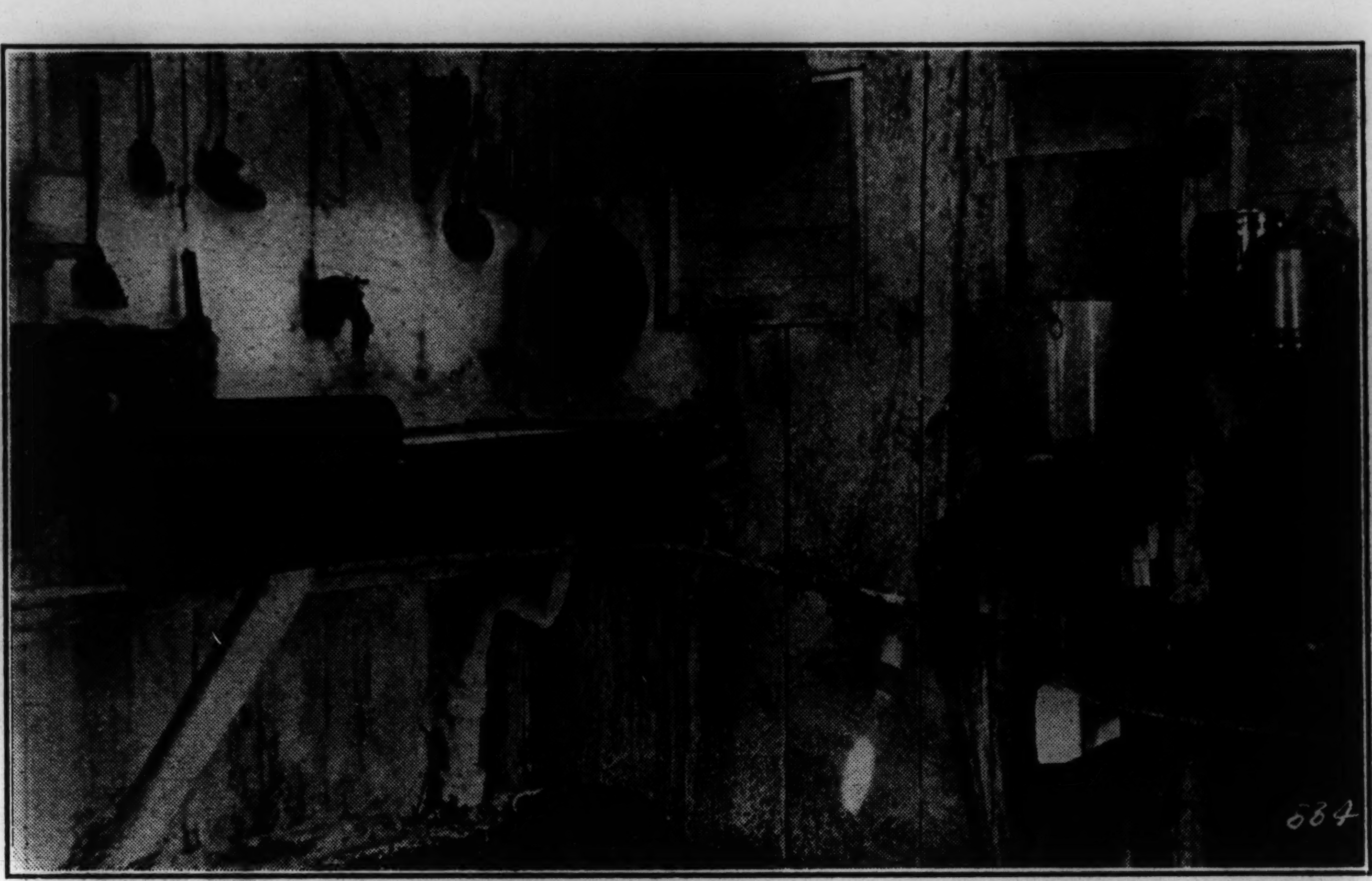


FIG. 7. In this dirty kitchen meals and lunches were formerly prepared for shipworkers, until the present excellent provisions were made in the company's yard.

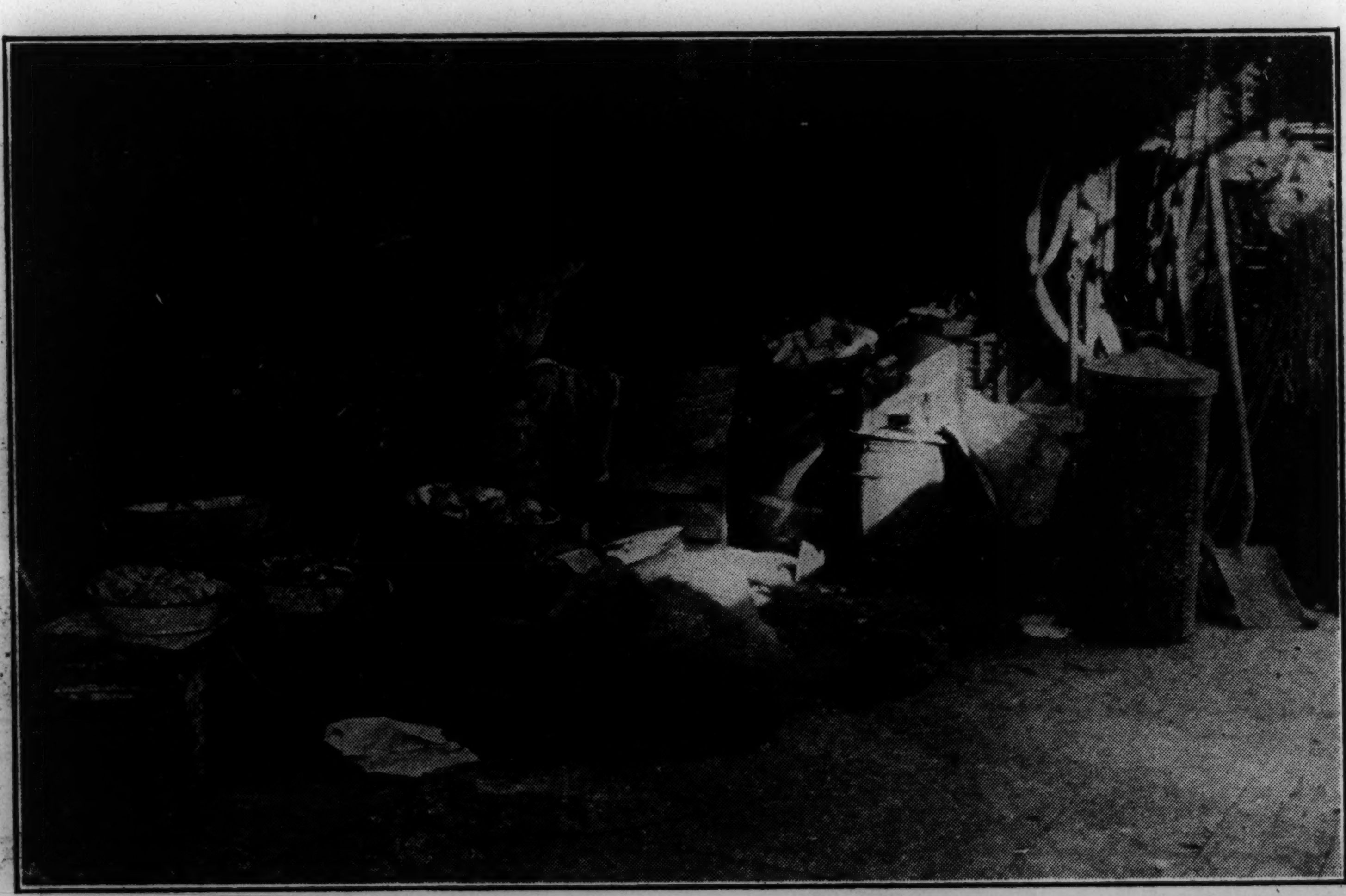


FIG. 8. Vegetables and other foodstuffs were formely stored in this shed where rats and flies were able to gain access to them.

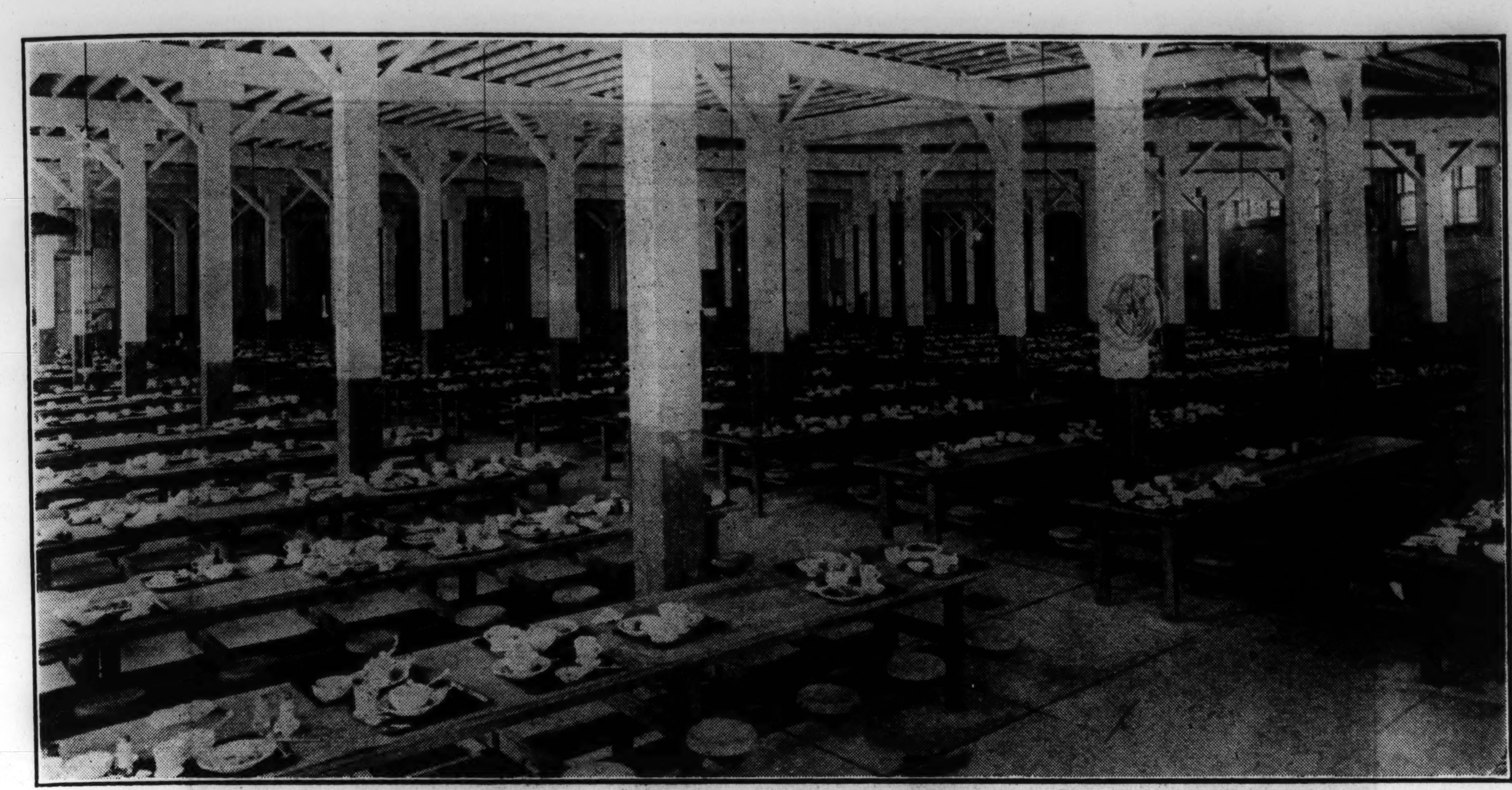


FIG. 9. Thousands of workers can be seated in the cafeteria dining room, where the equipment is kept in immaculate condition and where excellent food is served at cost. The increased efficiency shown by the workers is proof of the wisdom of providing for their welfare.

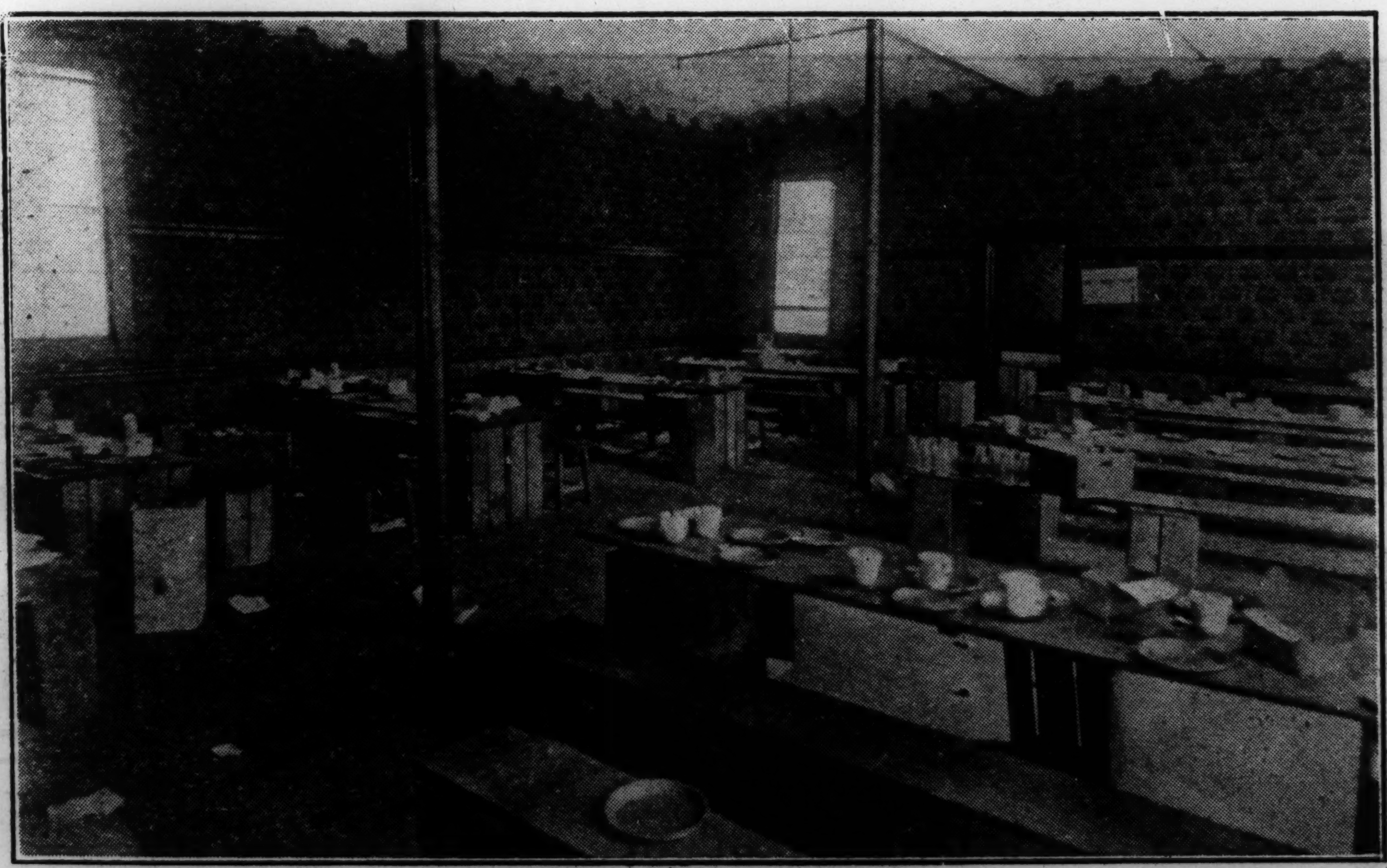


FIG. 10. Contrast this dining room, where the tables are constructed of old boards resting on boxes, with the modern equipment shown above.

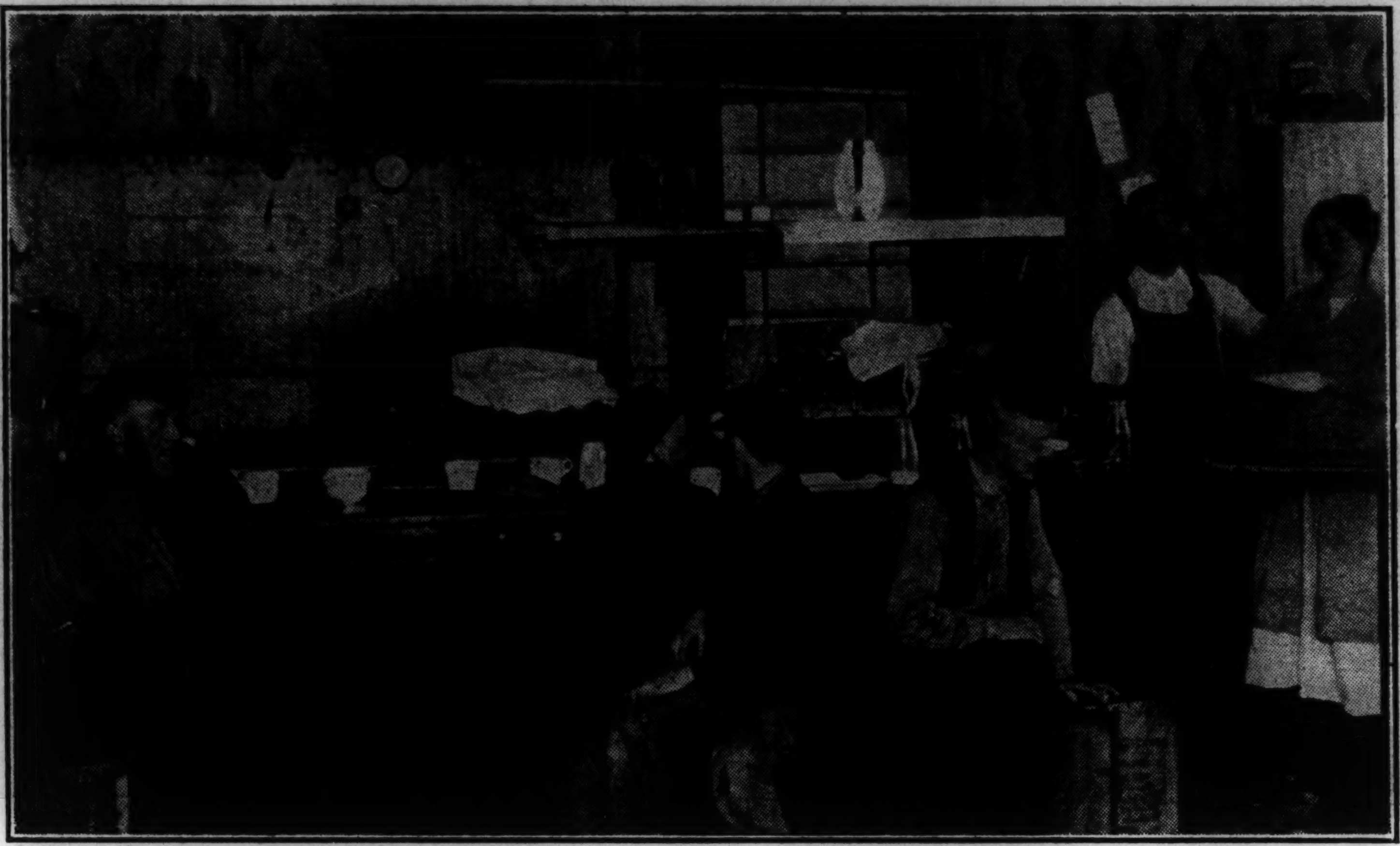


FIG. 11. Workmen who are obliged to eat in surroundings as shown above can not be expected to show a high degree of efficiency in their work.

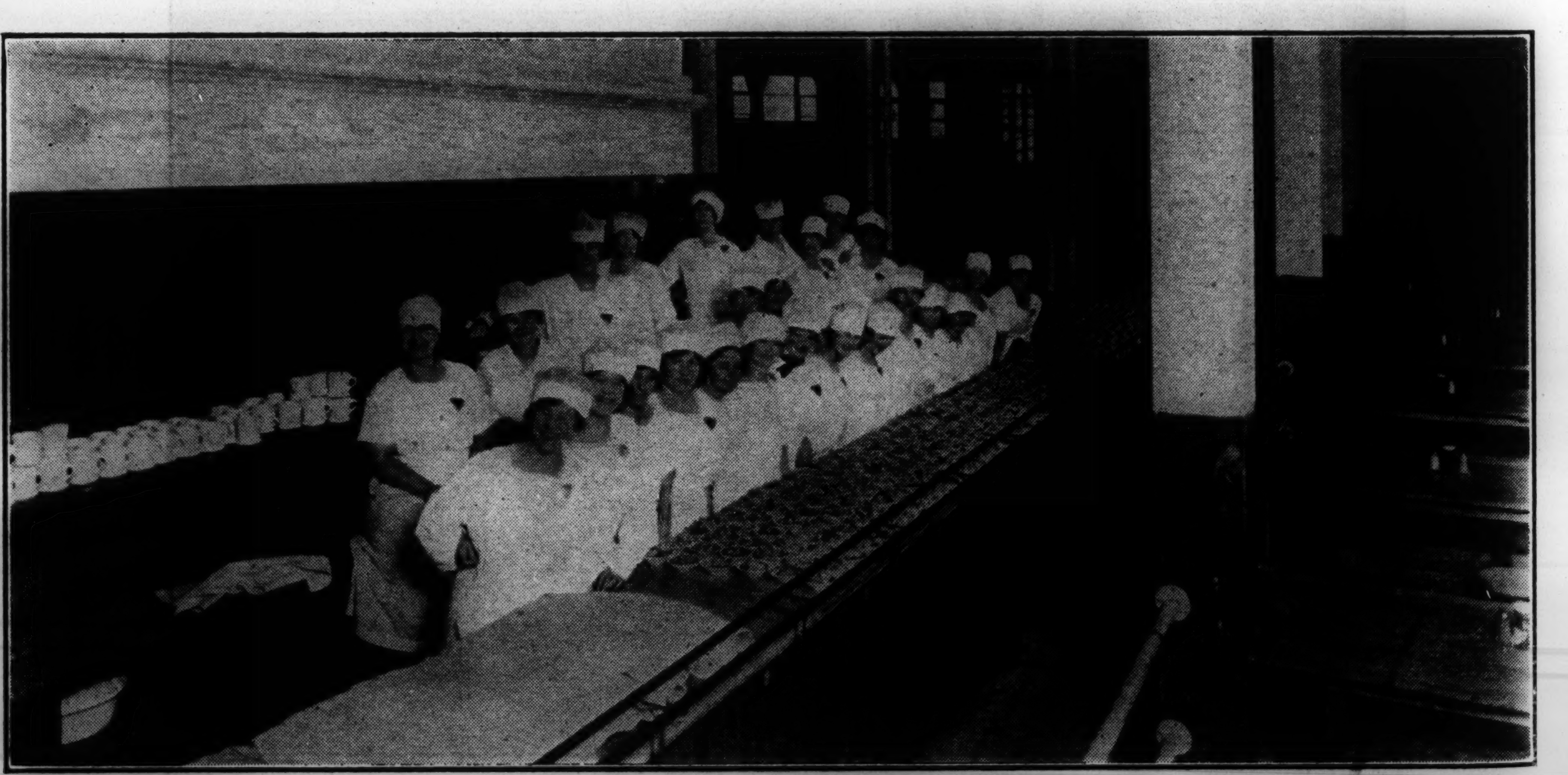


FIG. 12. The women workers who serve the foods in the company cafeteria are neat and attractive. They serve as many as 8000 men during the lunch hour, which, needless to state, is a busy hour for all concerned, the server as well as the served.

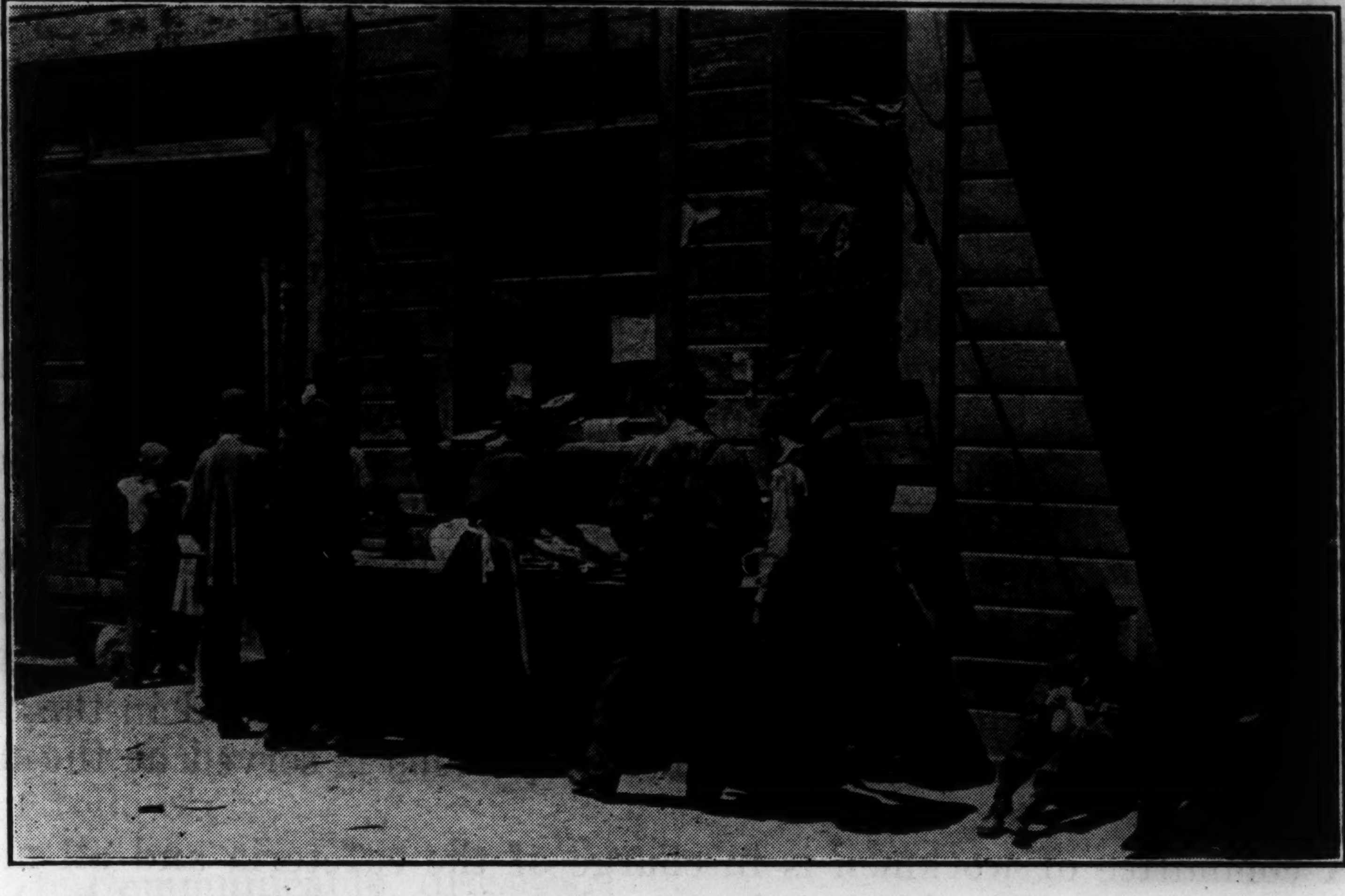


FIG. 13. Stacks of sandwiches exposed to street dust, flies and dirty fingers. The company well realized that this was not the proper food nor the proper method of serving food for its employees.

FIG. 14. The old restaurants, formerly surrounding the shipyard, were veritable rat harbors. The rat holes shown in the picture indicate, to a small extent, the bad conditions that formerly existed.

men eat the 35 cent luncheon, making it necessary to devote three entrances to that section of the cafeteria; one entrance is provided for each of the other sections. The 35 cent luncheon consists of soup, meat, two vegetables, bread and butter, pie, coffee or milk. The 25 cent luncheon consists of soup, three sandwiches, coffee or milk. In the remaining section the workman may order what he wishes. This provides for those men who bring their lunches from home and who wish to secure hot coffee or other drinks and have a clean place in which to eat their food. There are also dining rooms for officials, foremen and a special room for women employees. The latter receive soup, coffee and milk free of charge, making it possible for a girl to bring her lunch from home and to secure hot soup and coffee without additional expense. If she does not choose to bring her luncheon she may secure sandwiches at the canteen. Soft drinks, milk, ice cream, tobacco, etc., are also sold in the canteen. A meal ticket, good for one week, may be obtained on credit. This cares for the new employee who may be without funds and provides him with food until he is able to stand on his own feet, financially. Breakfast and lunch are the only two meals served in the cafeteria. Of course the greatest number of persons is served at the noon meal.

A committee of workmen is in charge of the cafeteria and all meals are sold at cost. The kitchen is provided with the most modern hotel equipment. There is a battery of immense soup kettles, steam cookers, mechanical dishwashers, sterilizers, potato mashers and all the other regulation big hotel machinery. Bread, rolls, pastry, etc., are baked on the premises. There are several immense refrigerators for the storage of meats, each of which is kept in the cleanest possible condition. There is one very good feature at the service counter, a feature that is generally lacking in the commercial cafeteria; that is the location of the steam tables holding the trays of cooked food. Instead of being located between the customer and the server, to be breathed and coughed upon, these steam tables are located back of the server and hot foods are placed upon the dinner plate at the order of the customer.

The popularity of the cafeteria is shown in the fact that practically two-thirds of the employees patronize this place. The management is greatly pleased with the results. Not only are the workmen able to do better work when they secure better food but there has developed a better spirit among the shipworkers. Many stores, factories, and industrial plants in California are now providing service of this sort for their employees. It is not purely an altruistic movement for it has been found that the inauguration of this service brings returns in dollars and cents. The employee whose health is good is able to do better work and more work then the employee who suffers from ill health. Better food and better living conditions have much to do with the employee's health and with his ability to work. The time is undoubtedly near when all large employers of labor in California will find it greatly to their advantage to follow the lead of the shipbuilding corporations and other firms that are now looking after the welfare of their employees.

OUR INFANT MORTALITY RATE.

Notwithstanding an increase of 19 per cent in registered births in 1920, there was an increase of about 26 per cent in infant deaths. The infant mortality rate for 1919 was 70.0, the lowest ever recorded for California. In 1920 the rate rose to 75.0. The fact that an increase in births is usually accompanied by an increase in the infant mortality rate has been observed for many years and has not been satisfactorily explained.

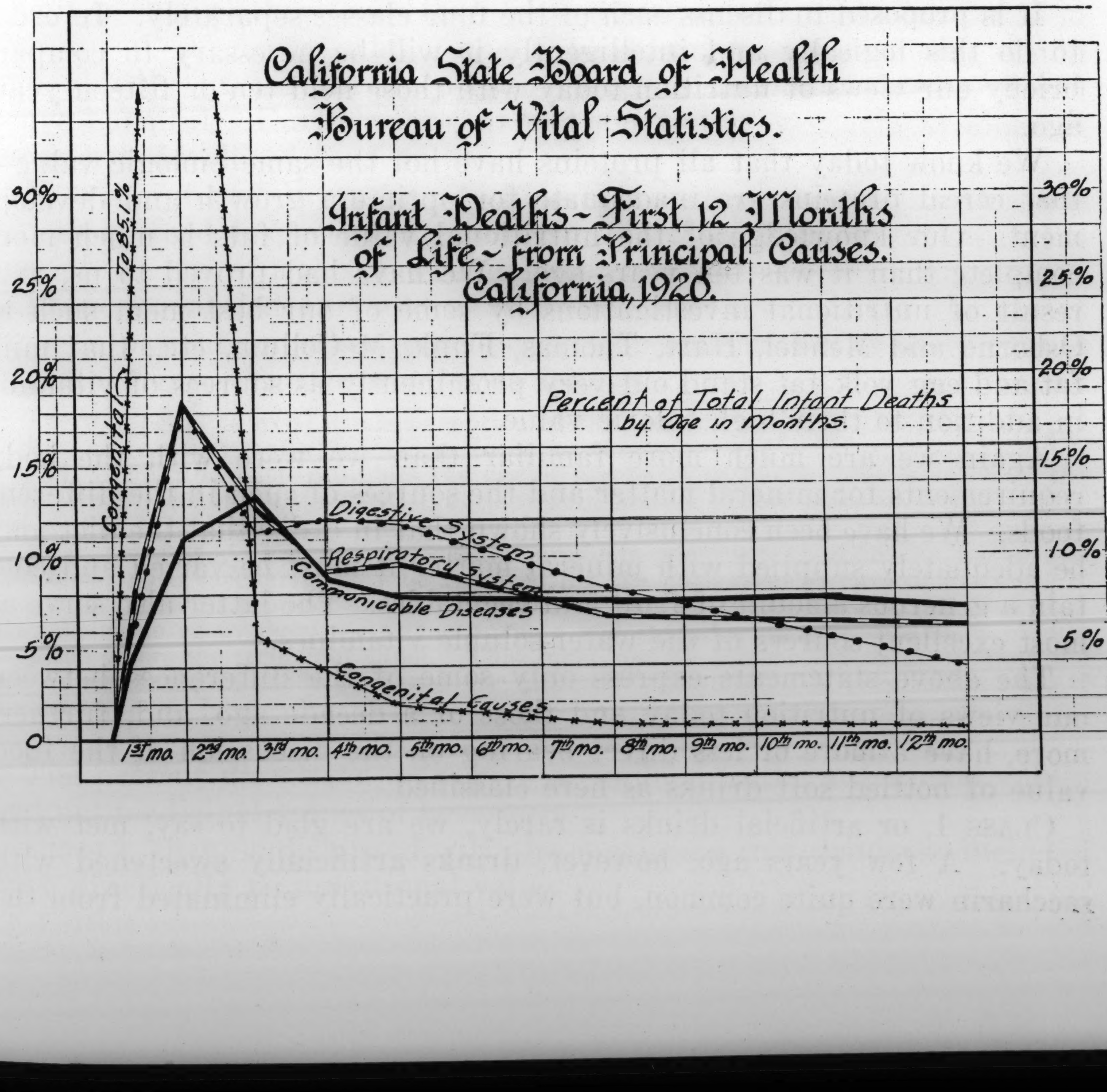
The accompanying graph shows the percentage of infant deaths according to age of the decedent in months, from four principal causes during 1920 as follows:

Communicable diseases.
Diseases of the respiratory system (including pneumonia).
Diseases of the digestive system (including dysentery).
Congenital causes.

In each instance the total deaths from the cause specified is taken as 100 per cent and various values computed for each month on this basis.

The relation of the causes mentioned to the total infant deaths in 1920 follows:

1.	Communicable diseases	11.8 per cent
2.	Diseases of the respiratory system	15.5 per cent
3.	Diseases of the digestive system	20.3 per cent
4.	Congenital causes	46.0 per cent
5.	All other	6.4 per cent



NUTRITIONAL VALUE OF BOTTLED SOFT DRINKS.

M. E. JAFFA, M. S., Consulting Nutrition Expert,
California State Board of Health.

One of the best definitions of food is:

> "Food is that which, when taken into the body, either builds tissue or yields energy."

If soft drinks meet either of these requirements they should be classed as a food and would be more or less valuable nutritionally.

According to the provisions of our Pure Food Law, food includes all articles used for food, drinks, confectionery or condiment, by man or other animals, whether simple, mixed or compounded. Under such a definition a bottled spring water, tea, coffee, etc., are classed as foods although their nutritive value is nil. The subject is here discussed biologically and not legally.

Bottled drinks may be conveniently divided into four main classes:

1. Drinks compounded from artificial flavors, artificial coloring matter and artificially sweetened.
2. Drinks compounded from artificial flavors, artificial coloring matter and sweetened with sucrose.
3. Drinks compounded from fruit juices or syrup with or without the addition of sucrose.
4. Drinks compounded from syrups containing stimulants such as caffein.

It is proposed to discuss each of the four classes separately. In order to do this logically and intelligently it will be necessary to compare briefly our views of nutrition today with those held ten or fifteen years ago.

We know today that all proteins have not the same biologic value—that cereal proteins are inadequate for optimum growth and development. Our knowledge of the nutritional value of fats is much more complete than it was ten years ago. We have had proved to us, as a result of nutritional investigations by some of our best men, such as Osborne and Mendel, Hart, Thomas, Funk, McCollum, etc., that milk fat and egg yolk fat stand out very prominently as sources of vitamine in addition to their high caloric value.

Again we are much more familiar than we were with the body requirements for mineral matter and the sources of such in the different foods. We have been conclusively shown that in order that the diet may be adequately supplied with mineral matter it must be varied and contain a generous amount of fruit and vegetables. The latter also serve as most excellent sources of the water-soluble vitamines.

The above statements express only some of the differences between our views of nutrition today and those of a decade ago, and, furthermore, have a more or less direct bearing on the discussion of the food value of bottled soft drinks as here classified.

CLASS 1, or artificial drinks is rarely, we are glad to say, met with today. A few years ago, however, drinks artificially sweetened with saccharin were quite common, but were practically eliminated from the market with the proclamation of food inspection decisions Nos. 138, 139, 142 and 146. The prohibition of the use of saccharin as an artificial sweetener has proved beneficial in every way in safeguarding the food of the consumer. This is well emphasized by the following statement from food inspection decision No. 142:

> The Bureau of Chemistry of the Department of Agriculture reports that saccharin has been found in more than fifty kinds of foods in common use. It is argued, therefore, that if the use of saccharin in foods be allowed, the consumer may very easily ingest, day by day, over 0.3 gram, the quantity which, according to the findings of the Referee Board, is liable to produce disturbances of digestion. On the other hand, it is claimed by the manufacturers that the sweetening power of saccharin is so great that, in a normal dietary, the amount of saccharin ingested daily would not exceed 0.3 gram, the amount found to be harmless by the Referee Board.
>
> However this may be, it is plain, from the finding of the Referee Board, that the substitution of saccharin for sugar lowers the quality of the food. The only use of saccharin in foods is as a sweetener, and when it is so used, it inevitably displaces the sugar of an equivalent sweetening power. Sugar has a food value and saccharin has none. It appears, therefore, that normal foods sweetened with saccharin are adulterated under the law.
>
> In making this decision we are not unmindful of the fact that persons suffering from certain diseases may be directed by their physicians to abstain from the use of sugar. In cases of this kind, saccharin is often prescribed as a substitute sweetening agent. This decision will not in any manner interfere with such a use of saccharin. The Food and Drug Act provides that any substance which is intended to be used for the prevention, cure, or mitigation of disease is a drug, and a product containing saccharin and plainly labeled to show that the mixture is intended for the use of those persons who, on account of disease, must abstain from the use of sugar, falls within the class of drugs and is not affected by this decision.

It is thus seen from the above that an ordinary bottled soft drink would not contain enough saccharin to be harmful in that there would be less than one-tenth of a gram of saccharin in the contents of the bottle, but if the use of saccharin were allowed in foods it would be found in many other foods than bottled soft drinks, and thus the total amount of saccharin which might be consumed in one day would undoubtedly exceed three-tenths of a gram and undoubtedly would prove harmful. Furthermore, drinks containing saccharin in place of sugar are devoid of food value.

It is of interest in passing to note that in accordance with the provisions of food inspection decision No. 146 there is no objection in the eyes of the law of a mixture being sweetened with saccharin provided it is properly labeled and sold as a medicine or beverage for the use of diabetic patients or other patients who for some reason or other cannot tolerate sugar. The decision is as follows:

> There appears to exist a misconception of the position of the Department of Agriculture as to the use of saccharin in foods as announced in Food Inspection Decision No. 142. That decision prohibits the use of saccharin in foods. The law defines the term "drug" and it is considered that saccharin has its proper place in products coming within this definition.
>
> It is recognized that certain specific products generally classified as foods, and sweetened with saccharin, may be required for the mitigation or cure of disease. It is not intended to prohibit the manufacture or sale of such products, provided they are labeled so as to show their true purpose and the presence of saccharin is plainly declared upon the principal label. This must not be interpreted to mean that the use of saccharin in foods prepared for ordinary consumption is permissible even if declared on the label.

The present discussion, however, is confined to the nutritional values and not medicinal values of beverages.

Class 1, then, is dismissed with the conclusion that drinks so included have practically no nutritional value.

CLASS 2 comprises drinks containing artificial color and flavor but sweetened with sucrose. These are the most commonly met with and their food value lies mainly in the sugar added. The greater the concentration of sugar employed, and the larger the amount of syrup added to the bottle, the higher is the nutritional value.

An examination of a large number of the bottled soft drinks indicate that the sugar content of the individual bottles varies from five-tenths of an ounce to nine-tenths of an ounce.

Comparing these quantities with a common unit of measure, the teaspoon, it is noted that the average amount of sugar per drink is about two rounded teaspoonfuls. The maximum and minimum being three and one-half, respectively. Another means of indicating the food value of any edible product is by means of the calory or heat unit. The minimum number of calories recorded for any drink was 46 with a maximum of 103 and an average of 70.

This average of 70 calories compares very favorably with the corresponding figures for the average helping of many fruits and vegetables, while the maximum of 103 equals the caloric value of a slice of bread, an average helping of edible nuts, crab, oysters, codfish, etc. It must not be forgotten in making such comparisons that the caloric value in a bottled soft drink is due as stated almost entirely to sugar, while in nuts, fish, etc., no inconsiderable part of the caloric value is derived from protein. Furthermore the average caloric value of soft drinks is less than that noted for the sugar and cream added to a cup of coffee or tea.

It will be observed that in addition to the sugar the drink often contains acids, chiefly citric, which have a certain therapeutic and hygienic value, but cannot be considered as being of any value nutritionally. The drinks of the second class do not yield any appreciable amount of mineral matter.

CLASS 3, drinks compounded from the fruit juices or syrup with or without the addition of sucrose.

It goes without saying that this class is by far the most valuable of all because in addition to the calories which have been previously referred to they contain no inconsiderable amount of fruit juice.

Fruits have long been recognized as being very valuable ingredients of the diet. The old idea being that these were valuable on account of the therapeutic action of the organic salts contained in the fruit, in addition to, of course, their value as a source of fruit sugar. Later investigations conclusively proved that fruit has an added value in that the mineral matter contained therein is basic in character and very necessary to offset the acid character of the minerals found in meat, cereals and eggs. Too much stress cannot be laid on the importance of including in the menu, therefore, a generous amount of fruits and vegetables if for no other reason than to be sure that there shall be a proper balance of the mineral matter so that the alkalinity of the blood shall not be interfered with. During the last few years, however, still further nutritional studies have indicated that the fruit juices contain an appreciable quantity of water-soluble vitamines and, as previously stated, no diet can be complete without the presence of vitamines, both water-soluble and fat-soluble, and there is no better source of the former than fruits and vegetables.

As an illustration of the foregoing it may be said that a carbonated drink containing one and a quarter ounces of condensed, pure grape syrup will equal in nutritive value about one-half glass of plain or normal grape juice, yielding 100 calories, but in addition to the calories would also furnish vitamines and valuable mineral matter, which are not present in beverages prepared from sugar syrup as a basis.

While it is true that the grape is probably one of the richest fruits in iron it would not be in the line of honest advertising for a bottler to state on the label that a bottle of carbonated grape juice would supply the necessary iron to meet the daily requirement for man, in that the contents of such a bottle would, at best, contain one-tenth the amount of iron that a man should receive in his daily food. Reference is made to this matter because there are advertisements stating, in effect, that certain grape products will furnish the necessary amount of iron daily required by man.

The above is typical, not only of the grape, but of many other pure fruit juices and condensed pure fruit syrups, such as the loganberry, raspberry, etc. It must be understood, however, that what has been said applies to fruit juices, as such, or condensed, and not to fruit extracts.

Again a glass of lemonade from lemon juice is, comparatively speaking, rich in antiscorbutic vitamines and minerals, while the artificial beverage is devoid of these two dietary essentials.

It is of interest in this connection to note that, in a recent address on the value of fruit juices in bottled soft drinks, Dr. Carl Alsberg, Chief of the Bureau of Chemistry, U. S. Dept. of Agriculture, says:

> I simply want to point out here what I believe is a real opportunity for you to place your industry in the class of essential industries, and not in the class of nonessential industries some have suggested but which does not have my sympathy. In addition to the advantage you will derive from the utilization of fruit juices and fruit concentrates directly in a business way, an outlet is offered for the utilization of great quantities of small fruits, apples, and the citrus fruits, which are now to a large extent an economic waste, because processes for their utilization have not been adequately developed. By the revision of your formulae so as to utilize more fully the products of the field and orchard your industry will surely occupy a more prominent place in the foreground of our economic and industrial picture. To properly develop this line of endeavor, you will probably require the services of skilled chemists.

It would appear as a supplement to Dr. Alsberg's message that the carbonated fruit juice would lend itself admirably for hospital dietetics in that not only would the nutritional worth be considerable but the patient would also derive benefit from the therapeutic value inherent in all fruit juices.

The purity of these drinks, however, must be carefully safeguarded and not be found on the market, as indicated by Dr. Wiley, who writes as follows:

> Once at a summer resort I saw a booth where orangeade was being sold. The beverage was presumably made while you waited. A few oranges were constantly rolling up an inclined plane and dropping into a machine and disappearing, and the juice was going out of a side exit. The food authorities having examined this machine, found that the oranges were doing an endless stunt. It was Sisyphus* translated into a citrus fruit. They escaped destruction entirely, while the reputed juice was wholly of artificial character. The application of the term "lemonade," "orangeade" or "limeade," to any preparation of this kind is misbranding, and the articles themselves are adulterated.

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*Sisyphus. From Greek. In fabulous history a robber or traitor notorious for his cunning and whose crimes were punished by his being compelled to roll to the top of a hill a huge stone, which constantly recoiled, making his task incessant.

CLASS 4, drinks compounded from syrups containing stimulants such as caffein. The introduction of this form of drink has been so favorably received that today there are upwards of fifty-seven varieties.

Many were under the impression that this class of beverages contained cocain. Such is not the case, however, because, as Dr. Wiley tells us:

> **The laws controlling the traffic in cocain and its sales have become so strict that the use of this body in so-called soft drinks is practically prohibited. The only alkaloid which is employed at the present time in the preparation of these beverages is caffein. Caffein is an alkaloid of somewhat restricted occurrence, being found chiefly in coffee, tea, cola nuts, yerba mate, and guarana. In the cylindrical sticks of the plant guarana, prepared for the market, as high as 5 per cent of caffein is sometimes found.**
>
> **The caffein which is used commercially is extracted chiefly from tea sweepings, although it may be obtained from coffee which is used in making Kaffee Hag and similar preparations. It is a white crystalline powder, colorless when pure, and at high temperature is sublimed unchanged.**

The chief beverage found on our markets today which contains caffein is Coca Cola, the basis of which is a syrup consisting of about one-half sugar, one-third water, with less than one per cent of phosphoric acid and a caffein content varying from 0.92 to 1.30 grains per fluid ounce. The syrup also contains small quantities of caramel, glycerine, lime juice, essential oils, and plant extractives. The above composition was offered as evidence before the Federal Court in Chattanooga and which proved conclusively that the syrup contained no other alkaloid than caffein. It would be somewhat foolish to condemn the use of Coca Cola because it contains caffein when this same alkaloid is found in tea and coffee. A cup of tea, as ordinarily made, contains about 1 grain of caffein, the corresponding figures for coffee is 1.7 grains. The average amount of caffein found by the Kentucky Station as the result of the examination of 25 samples of caffein-bearing beverages was eight-tenths grain with a minimum of four-tenths and a maximum of one and a quarter grains per bottle of six and one-half ounces.

It is almost unnecessary to state that it would be extremely unwise for those who cannot tolerate coffee, because of the harmful effects on the system of caffein, to partake of Coca Cola. Again, children should not be allowed to use this beverage for the same reason that they are forbidden tea and coffee. For the adult harmful results would follow the excessive use of this drink, the injurious effects being the same as those resulting from the excessive use of coffee or tea.

The food value of Coca Cola drinks is practically the same as that noted for other soft drinks, about seventy calories per bottle of six and one-half fluid ounces, due practically to the content of sugar.

With reference to the stimulants, other than caffein, such as, capsicum, coy, etc., which are found in small quantities in different soft drinks, it should be stated that their value must not be ignored. At the same time they cannot be classed as foods in that they neither build tissue, yield energy, or regulate body processes. They may, and sometimes do, tend to promote a greater activity of some of the body processes, but, as such, act as tonics or medicines and not as food and are consequently not considered in the present discussion.

The large majority of the bottled soft drinks are colored artificially; the exception being ginger ale, sarsaparilla, root beers, carbonated grape juice, etc. The colors which are used are those permitted by the Bureau of Chemistry, U. S. D. A., for the artificial coloring of foods. They have, however, absolutely no food value and have no injurious effects on the system, that is, when used in the small amounts necessary for the coloring of the respective food or drink. They are added, naturally, for the purpose of pleasing the eye and in that way psychologically pleasing the palate.

The artificial flavoring ingredients very largely added to soft drinks are present in extremely small amounts and have no nutritional value. It is very encouraging to note, as indicated by the investigations of the Bureau of Chemistry, U. S. D. A., that there is an increasing demand for the natural or true flavors, evidenced by the larger use of fruits in the preparation of soft drinks. This type of flavor has also practically no nutritional value other than that which is contained in the alcohol carrying the flavor, etc. It must not be forgotten that there is a great difference between a fruit juice carrying the flavor and an extract containing the flavor of the fruit juice. In the former case we have all the nutritive value of the fruit, whereas in the latter case we have merely an alcoholic extract carrying only the flavor.

The foregoing is based on the supposition that the products are manufactured under clean and sanitary surroundings, because it is axiomatic that no matter how high is the food value of the ingredients in any formula, the nutritional worth of the finished product would be nil if prepared under insanitary conditions, in that, it would probably breed disease and might cause an epidemic.

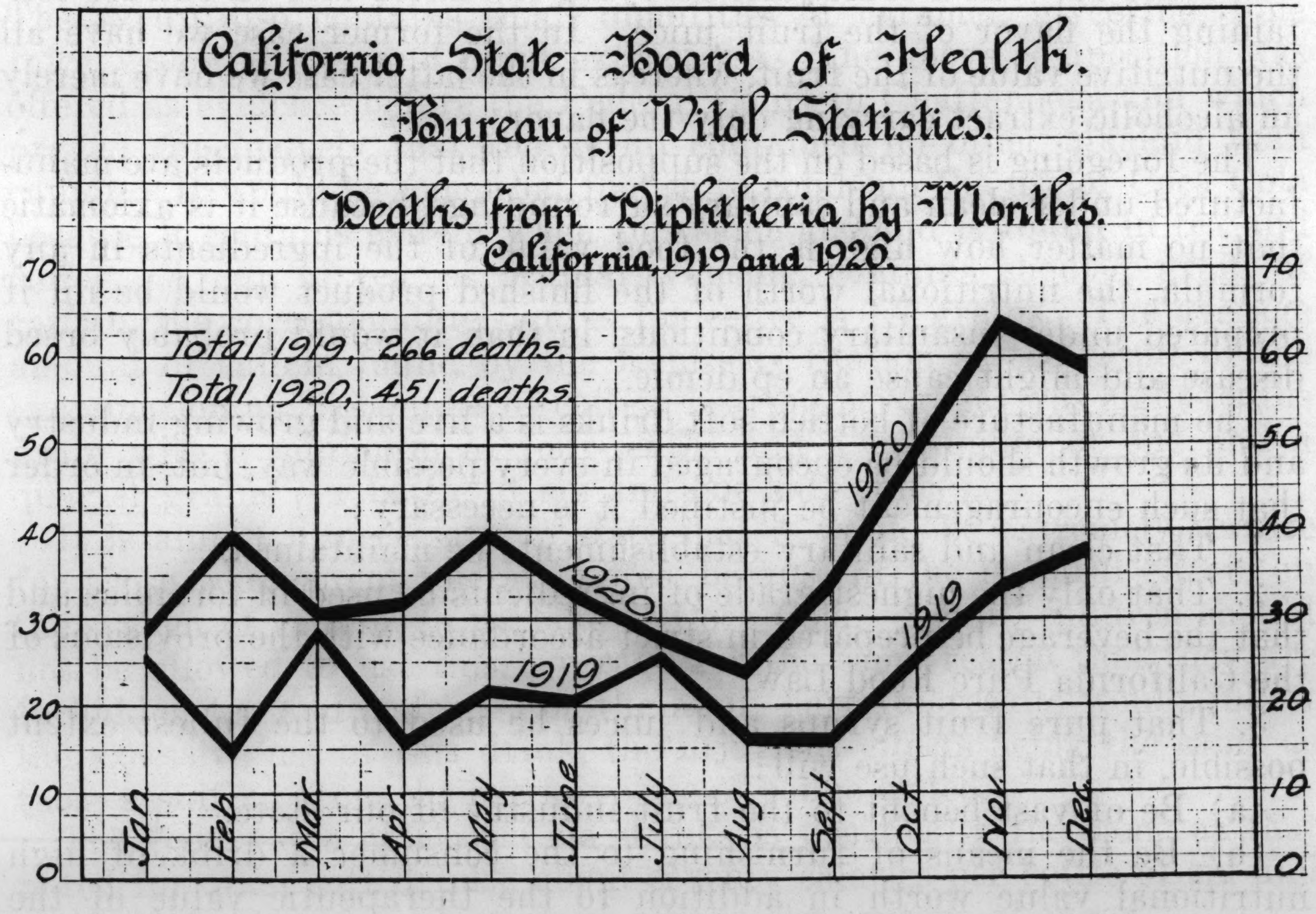
The manufacture of bottled soft drinks is a live and growing industry and its growth should be encouraged in every possible way, but, in order that such encouragement be justified it is necessary:

1. That clean and sanitary establishments be maintained.
2. That only the highest grade of ingredients be used in formulas and that the beverage be prepared in strict accordance with the provisions of the California Pure Food Law.
3. That pure fruit syrups and juices be used to the fullest extent possible, in that such use will:
   (a) Be of vast benefit to the fruit industry of our state.
   (b) Be the means of furnishing to the consumer a drink of high nutritional value worth in addition to the therapeutic value of the respective fruit.

DIPHTHERIA DEATHS INCREASING.

Deaths from diphtheria have been increasing for some time. In 1918 this disease caused 213 deaths in California. In 1919 there were 266 deaths recorded from this cause and in 1920 the number almost doubled, 451 deaths from diphtheria being registered. During the latter part of 1920 this disease became unusually prevalent in most parts of the United States. At this time there was a sharp rise in the diphtheria deaths in California. The accompanying graph shows the deaths by months for 1919 and 1920.

Although great progress has been made during the past few years in fighting this disease, the death rate for 1920 was the highest since 1908. During that year the rate was 17.9 per 100,000 population, and in 1907 it was 18.3, while the 1920 rate was 13.0. During 1914, 1915 and 1916 diphtheria caused an unusual number of deaths, the peak of this period being 1915, with a death rate of 10.5. From 1907 to 1912 the diphtheria death rate steadily decreased, then rose to a peak in 1915, again declined until 1918, and has been increasing since that time. Indications now are that the mortality is on the decrease, sixty deaths being registered during January and forty-two in February.



USE OF SCHICK TEST AND TOXIN-ANTITOXIN.

GENEVA S. ORCUTT, R. N., Children's Agent, State Board of Control.

The Los Angeles Orphans Home, 815 El Centro avenue, Los Angeles, has recently completed some excellent preventive work which should be of interest to those in charge of other child caring institutions. During the past year diphtheria has invaded this home to such an extent that a number of children have become victims and many weeks have been spent in quarantine.

Realizing that it is possible, through scientific study of recent years, to immunize young children against this disease, it was decided to apply this preventive measure to the entire group including those who had previously had the disease.

The Schick test, which is a skin test proving only the child's susceptibility, was applied to 122 individuals by Dr. Bettin of the Los Angeles Health Department. This included the complete number enrolled and the staff. The immunization of those giving positive reaction was done by Dr. Edward Eisen, the physician for the home. The readings of the skin test revealed that 61 children and 3 adults were "positive" and therefore susceptible to the disease. These "positives" included a few who had been ill with diphtheria previously, and also one child who had been a victim twice.

As immunization consists of three subcutaneous injections of toxin-antitoxin, given a week apart, the work was conducted so as to treat a few at a time, thus allowing good supervision. Of those to receive the immunization only 10 showed any reaction whatever, and Dr. Eisen states that but one gave slight indication of serum anaphylaxis and this was transitory. The reaction has been a little more severe with the older children, but those in charge feel that the inconvenience was slight and not to be compared with the danger of going unprotected. The reading of the Schick test brought out the interesting fact that the "positive" reactions frequently ran in the same families, indicating susceptibility as a family trait. Because of this, Dr. Eisen decided to immunize all children in such families.

Since this work has been so successfully done, a policy has been declared whereby all entrants to the home must hereafter receive the toxin-antitoxin treatment before admission.

The total cost of this preventive step amounted to not more than $35. This is a small expense compared to even a slight epidemic, and not to be considered when we realize that these children have obtained a probable lifelong immunity.

EPIDEMIOLOGY.

THE NECESSITY OF PROMPTLY REPORTING COMMUNICABLE DISEASES.

FRANK L. KELLY, M. D., Epidemiologist, and
IDA MAY STEVENS, Assistant Epidemiologist.

BUREAU OF COMMUNICABLE DISEASES.

All cases of communicable diseases should be promptly reported to the local health officer in order that he may be cognizant of the prevalence of such diseases and institute measures to prevent their spread. No health official, however competent he may be, can control the spread of communicable diseases unless he knows where and when they make their appearance. Communicable disease is like fire for as ''all large fires begin as small ones'' so all epidemics begin with single cases and if the first case is promptly reported and the proper precautions taken the spread of the disease can be stopped.

The law requires that all physicians and other persons knowing of the existence of a case of communicable disease shall promptly report the same to the local health officer; and that the health officer shall forward such reports to the State Board of Health at the end of every week. In order that communities which are running a higher incidence than normal may be kept before the attention of the epidemiologists, the Bureau of Communicable Diseases makes use of endemic curves, ''index maps,'' spot maps and card records.

1. ENDEMIC CURVES. The chief function of a health department is to lower the morbidity and mortality from the different communicable diseases. It is therefore more important to know that the total number of cases reported for the year up to a given time is above or below the total normally reported up to the same time than it is to know that the number reported for any one week or month is above or below that normally reported for the same week or month.

For the above reason instead of establishing a monthly endemic index for the different diseases as devised by Brown (1) a normal endemic cumulative curve of each disease was plotted for each county in the State. Assuming, as did Brown, that the average of the last five years would give a fairly accurate index of the normal, these curves were plotted by taking the average of the monthly reports, exclusive of epidemics, for the preceding five years and constructing cumulative curves. Averages proved much more practical than medians, as suggested by Hitchcock and Carey, (2) in constructing these curves. In such small units as counties the variation in the weekly reports is so great that averages give a much more accurate index than medians which are only of use where a large series of numbers is available and in which the variation is not great.

The reports from the local health officers are sent in weekly. When all of the reports from a county are received for the week they are totaled and the result plotted in a cumulative curve by weeks on the same sheet with the endemic curve. Whenever the current curve rises above the endemic curve it shows that the disease has become more prevalent than normal and this fact is immediately brought to the attention of the epidemiologists. In order that a community that has run consistently below the normal may not have an outbreak of a disease unnoticed, even though this outbreak may not carry the total cases above the normal, any sudden rise of the current cumulative curve is called to the attention of the chief of the division.

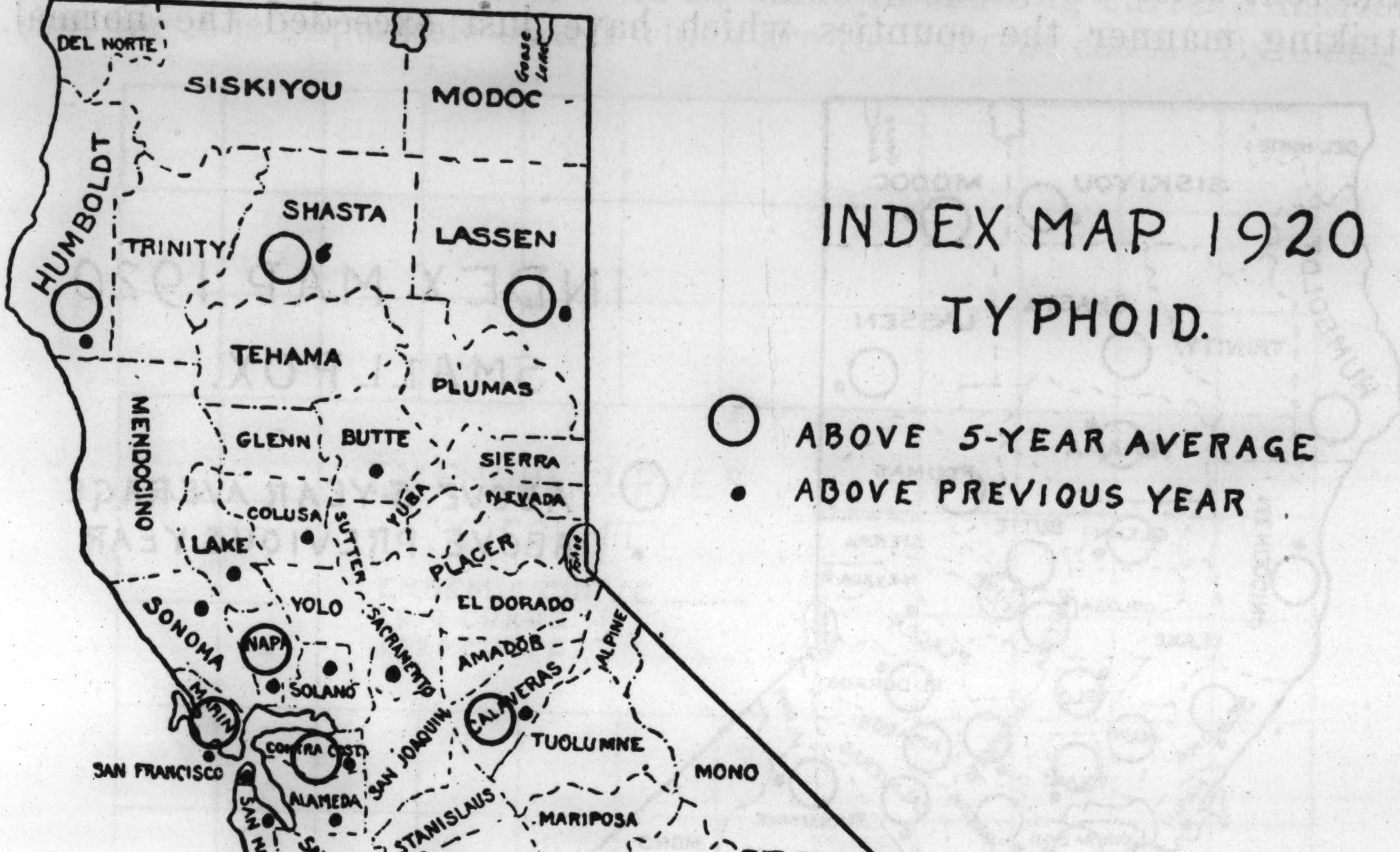


FIG. 1.

On the same sheet with the endemic and current curves is the cumulative curve by weeks for the preceding year. In this way the relation of the current year to the year just passed, as well as the relation to the normal, is apparent at all times.

2. INDEX MAPS. In order that it may be seen at a glance just which communities are above the normal, an "index map" of the State is kept for each disease. Whenever the current cumulative curve of a county rises above the endemic curve on the graph described above, a

red thumb tack is placed in the corresponding county on the map, and whenever the current curve rises above that of the preceding year, a colored round headed pin is used. If the county remains above the normal for another week the red tack is replaced by a colored one, a different color being used for each disease. This brings out in a very striking manner the counties which have just exceeded the normal.

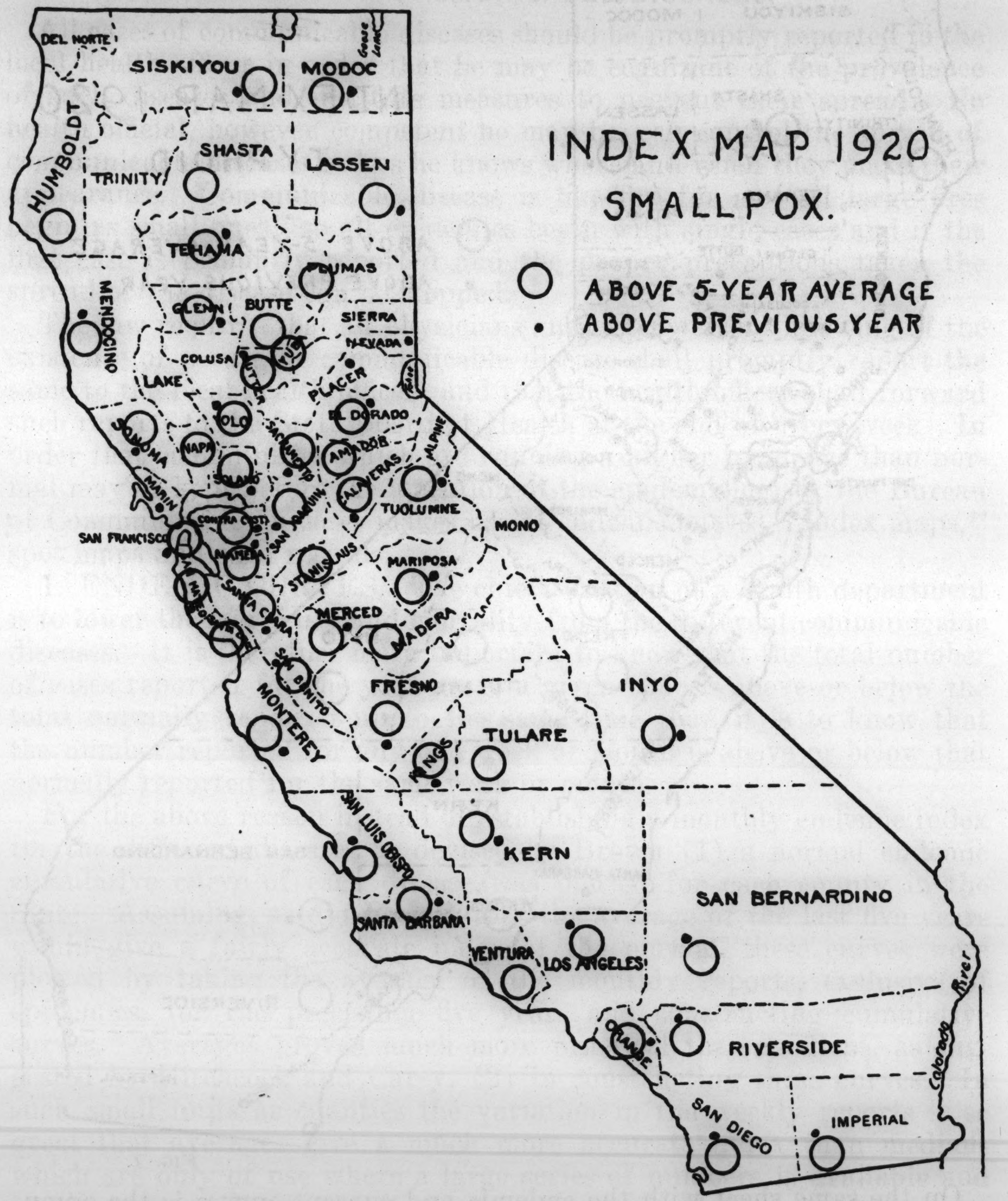


FIG. 2.

Should the current curve later drop below the endemic curve or the curve for the preceding year the pins are withdrawn. In this way it is possible to see at any time which counties are running above the normal and just where more intensive work is needed if the State rate is going to be lowered. Fig. 1 shows the typhoid "index map" for 1920 and Fig. 2 the smallpox map. Typhoid it will be seen went above the normal in 17 counties and smallpox above in 48.

3. SPOT MAPS. Ordinary spot maps are kept in order to show the actual number and distribution of cases, a separate map and different colored pins being used for each disease. In order to show the current distribution, quarterly, as well as annual maps are kept. After a map is four to six months old it is of no value in showing current distribution for it is impossible to tell which are the current cases. By using a map for each quarter, not only the current distribution is shown fairly accurately but also the seasonal distribution of a disease can be followed. Pins of three sizes are used, the smallest for single cases, the next size for five cases, and the largest for twenty-five cases. The pins used on the spot maps correspond in color to the tacks used on the index maps except as noted above.

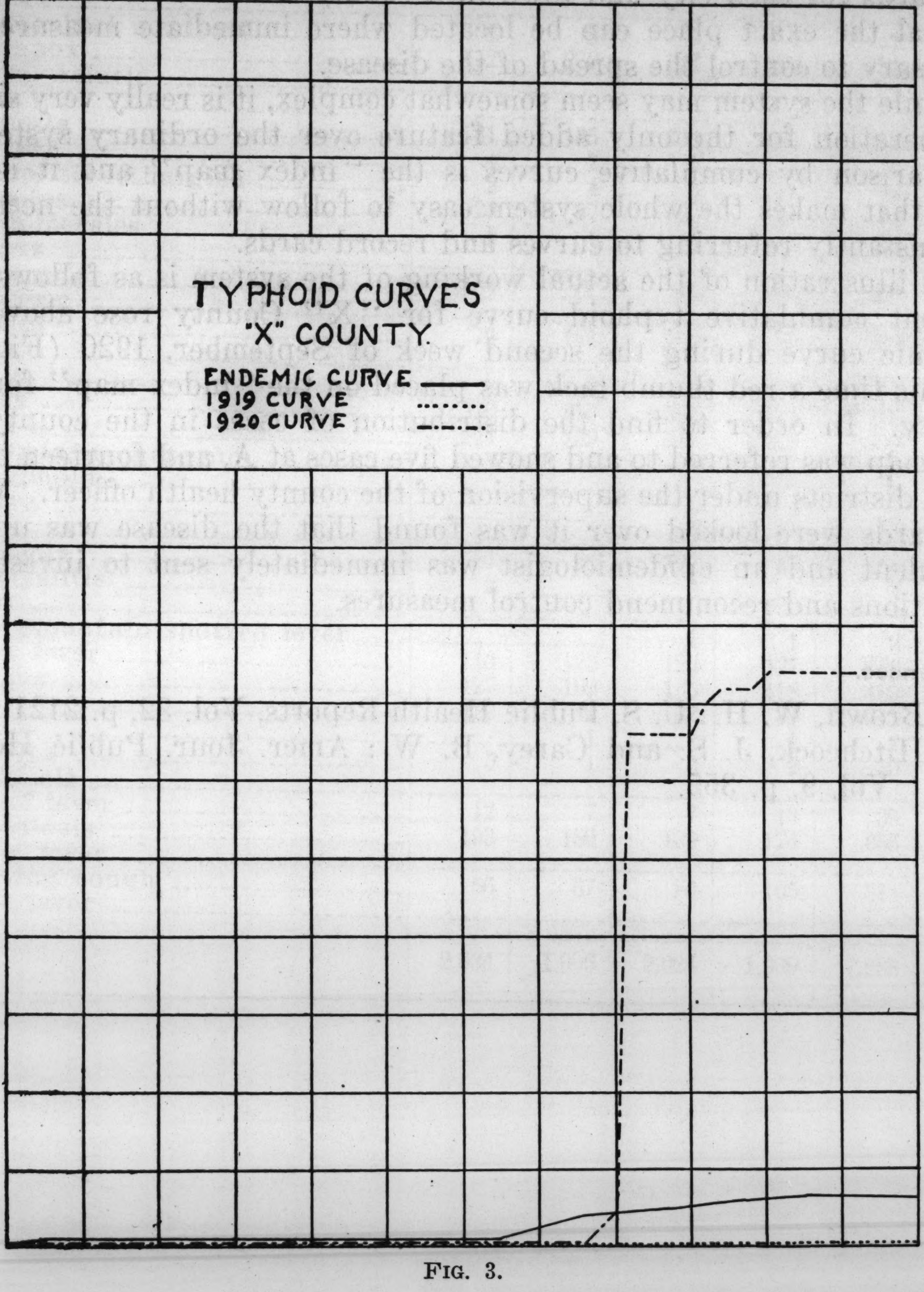


FIG. 3.

These two sets of maps show the actual distribution and incidence of cases throughout the State and what is more important whether or not each county has fewer cases than normally, and whether it is above or below the preceding year.

4. CARD RECORDS. A set of cards is kept for each locality in the State and filed by counties. On these cards can be entered the number of cases reported each week for a period of eight years. This gives a ready comparison by weeks for a long period of time. By going over the cards for each city and town in a county which has run above the normal the exact place can be located where immediate measures are necessary to control the spread of the disease.

While the system may seem somewhat complex, it is really very simple in operation for the only added feature over the ordinary system of comparison by cumulative curves is the "index map" and it is this map that makes the whole system easy to follow without the necessity of constantly referring to curves and record cards.

An illustration of the actual working of the system is as follows: the current cumulative typhoid curve for "X" County rose above the endemic curve during the second week of September, 1920 (Fig. 3). At this time a red thumb tack was placed on the "index map" for this county. In order to find the distribution of cases in the county the spot map was referred to and showed five cases at A, and fourteen in the rural districts under the supervision of the county health officer. When the cards were looked over it was found that the disease was unduly prevalent and an epidemiologist was immediately sent to investigate conditions and recommend control measures.

References.

1. Brown, W. H.: U. S. Public Health Reports, Vol. 32, p. 2121.
2. Hitchcock, J. S. and Carey, B. W.: Amer. Jour. Public Health, Vol. 9, p. 355.

MORBIDITY.

MORBIDITY FOR THE MONTH OF APRIL, 1921—BY WEEKS.

Diseases	April 9	April 16	April 23	April 30	1921 Total April	1920 Total April
Anthrax			1		1	
Beriberi						
Cerebrospinal meningitis	3	8	6	4	21	19
Chickenpox	172	230	142	190	734	569
Cholera, Asiatic						
Dengue						
Diphtheria	131	136	200	148	615	426
Dysentery	4	2	5	4	15	2
Encephalitis lethargica	2	4	6		12	8
Erysipelas	23	17	20	18	78	49
German measles	5	1	3	6	15	26
Glanders						
Gonococcus	104	57	45	93	299	505
Hookworm						
Influenza	79	111	110	82	382	372
Leprosy						3
Malaria	3	2	2	5	12	33
Measles	570	610	564	515	2 259	1,359
Mumps	224	239	248	228	939	648
Opthalmia neonatorum		1	2		3	2
Paratyphoid				2	2	2
Pellagra			2	2	4	
Plague						1
Pneumonia	87	78	127	62	354	168
Poliomyelitis	2		2		4	2
Rabies						1
Rocky mountain spotted fever			1	1	2	
Scarlet fever	110	123	126	127	486	262
Smallpox	127	109	135	118	489	243
Syphilis	122	42	42	39	245	439
Tetanus		1		1	2	2
Trachoma	5	1	3	2	10	12
Trichinosis						
Typhoid fever	12	7	7	13	39	40
Tuberculosis	193	150	139	174	656	733
Typhus fever						
Whooping cough	56	67	86	105	314	739
Yellow fever						
	2,034	1,996	2,024	1,939	7,988	6,665

MORBIDITY FOR THE MONTH OF MAY 1921—BY WEEKS.

Diseases	May 7	May 14	May 21	May 28	Total May 1921	Total May 1920
Anthrax	-------	-------	-------	-------	-------	2
Beriberi	-------	-------	-------	-------	-------	1
Cerebrospinal meningitis	2	2	2	1	7	19
Chickenpox	197	187	173	233	790	566
Cholera, Asiatic	-------	-------	-------	-------	-------	-------
Dengue	-------	-------	-------	-------	-------	-------
Diphtheria	132	140	141	163	576	541
Dysentery	8	5	4	1	18	6
Encephalitis lethargic	2	1	2	1	6	12
Erysipelas	11	22	16	4	53	54
German measles	4	4	5	5	18	45
Glanders	-------	-------	-------	-------	-------	-------
Gonococcus	143	54	67	109	373	449
Hookworm	-------	-------	-------	-------	-------	2
Influenza	33	40	39	25	137	175
Leprosy	-------	2	-------	1	3	2
Malaria	5	3	4	5	17	38
Measles	435	452	489	420	1,796	1,830
Mumps	233	181	172	273	859	699
Ophthalmia neonatorum	-------	2	1	-------	3	1
Paratyphoid	-------	-------	-------	-------	-------	1
Pellagra	2	-------	-------	1	3	3
Plague	-------	-------	-------	-------	-------	-------
Pneumonia	83	52	53	52	240	169
Poliomyelitis	3	1	-------	4	8	4
Rabies	-------	-------	1	1	2	-------
Rocky mountain spotted fever	2	1	-------	-------	3	-------
Scarlet fever	88	114	138	125	465	348
Smallpox	116	126	74	109	425	306
Syphilis	138	56	47	78	319	443
Tetanus	1	-------	1	3	5	4
Trachoma	1	86	20	-------	107	10
Trichinosis	-------	-------	-------	-------	-------	-------
Typhoid fever	8	11	19	9	47	67
Tuberculosis	176	116	177	169	638	885
Typhus fever	-------	-------	-------	-------	-------	-------
Whooping cough	74	93	77	62	306	740
Yellow fever	-------	-------	-------	-------	-------	-------
	1,897	1,751	1,722	1,854	7,224	7,422

SANITARY INSPECTIONS.

EDWARD T. ROSS, Chief Sanitary Inspector.

On May 1 the enforcement of the city and county muzzling ordinances was suspended in San Joaquin County. During the period the ordinances were in force 4421 dogs were killed, 2960 premises were visited, 2658 persons were spoken to personally regarding the requirements of the ordinances, and 58 persons who failed to comply with the provisions of the ordinances were arrested. Of these, 20 were tried, convicted and fined. The fines imposed ranged from $25 to $100. The other 38 cases are still pending.

During the first week of the month an investigation was made into the rabies situation in Stanislaus County. As no case of rabies had been reported for several weeks, and as the dogs throughout the county were under fairly good control, due to the activity of the officials, the enforcement of the city and county muzzling ordinances was suspended. During the period the ordinances were in force over 300 dogs were killed, 660 premises were visited, and 49 persons were arrested for failure to comply. Of the latter, 22 were convicted and fined $25 each; 2 cases were dismissed, and the remaining 25 cases are still pending. The city ordinances, which provide for the licensing of dogs, are still in force. In the city of Modesto in the past few months over 300 licenses were collected. The county officials are considering the adoption of a licensing ordinance.

The latter part of the month was spent investigating sanitary conditions in automobile camp grounds and summer resorts; twenty automobile camp grounds and four summer resorts were visited. In the majority of the camps proper facilities for the disposal of sewage and garbage were lacking. Over 1200 notices pertaining to camp sanitation were distributed to health officers, camp owners, and others in the various localities throughout the state.

The matter of posting the State Board of Health's notices relating to mountain sanitation in the various forest reserves in the state was taken up with the United States Forest Service. The officials of this service notified their rangers to post such notices, and assured us of their hearty cooperation in our efforts to keep the mountains clean. A list of the forest supervisors, giving the approximate number of notices they would need in the forest reserves under their supervision, was furnished by Mr. L. A. Barrett, Acting District Forester.

Reinspections were made of premises in the business section of Salinas. Practically all recommendations have been complied with, and sanitary conditions in this section of the city are now above the average. Due credit should be given to Mr. S. F. Butler, Health Officer of Salinas, for his earnest efforts in carrying out our recommendations. Over 40 miscellaneous premises were inspected, and a number of complaints relative to alleged insanitary conditions in various localities were investigated. In practically every instance the complaints were justified.

In addition to investigations made during the month, over 30 sanitation reports were submitted.

SUMMARY OF OPERATIONS.

San Joaquin County—Rabies control:

Investigations	4
Meetings attended	5
Premises visited by deputies	2,960
People interviewed by deputies	2,658
Talks given in schools regarding enforcement of ordinances	68
Dogs killed by deputies and others	4,421
Cats killed	258
Notices posted (muzzling ordinances)	500
Notices distributed (warning)	1,000
Arrests made (failure to comply with ordinances)	58
Convictions	20
Cases pending	38

Stanislaus County—Rabies control:

Investigations	6
Meetings attended	4
Premises visited by deputies	660
Dogs killed, approximately	500
Notices posted (muzzling ordinances)	250
Notices distributed (warning)	500
Arrests made (failure to comply with ordinances)	49
Convictions	22
Dismissals	2
Cases pending	25

Mountain sanitation:

Auto camps inspected	21
Summer resorts inspected	4
Road side auto camps inspected	7
Camp regulations sent out	369
Camp notices posted	243
Notices prohibiting stream pollution	628

Salinas reinspections:

Miscellaneous premises, food supply, etc.	40
Premises placed in sanitary condition	31
Nuisances abated	90

Note—The above includes the screening of premises, installation of additional plumbing facilities, toilets, etc., and the general cleaning of premises.

Miscellaneous:

Premises inspected	47
Complaints investigated	11
Nuisances abated	114
Sanitary reports submitted	30

Following are shown the sort of placards that are being posted throughout the state in automobile camps and in spots that are frequented by summer tourists. Health officers who desire to post such placards in their territory may secure a limited supply by addressing the secretary of the State Board of Health, Sacramento.

BEWARE OF ARREST

Commit no Nuisance

THIS CAMPING PLACE MUST BE KEPT CLEAN

Bury all Waste, Garbage and other Refuse

Report all Insanitary Conditions to State Board of Health, Sacramento.

WARNING

COMMIT NO NUISANCE

It is Unlawful to Pollute Streams, Lakes or Watersheds

Bury all waste, garbage and other refuse away from streams or lakes. Violators will be prosecuted under state law.

CALIFORNIA STATE BOARD OF HEALTH

Report all Insanitary Conditions to State Board of Health, Sacramento.

REGULATIONS
GOVERNING
CAMP-GROUND SANITATION

ADOPTED DECEMBER 4, 1920.

The following regulations shall apply to any city, county, city and county, village, community, institution, person, firm or corporation, operating, maintaining or offering for public use within the State of California any tract of land on which persons may camp or picnic either free of charge or by payment of a fee.

Section 1. A water supply of sanitary quality shall be provided in ample quantity to meet all requirements of the maximum number of persons using such a tract at any time. Said water supply shall be easily obtainable from its source or from faucets on a pipe distributing system within a distance of not more than 300 feet of any camp or picnic spot within such tract.

Section 2. Any water considered unsafe for human consumption in the vicinity of such tract of land, to which campers or picnickers on said tract may have access, shall be either eliminated or purified, or shall be kept posted with placards definitely warning persons against its use.

Section 3. Fly-tight privies or water-flushed toilets shall be provided and shall be maintained in a clean and sanitary condition. Separate toilets for men and women shall be provided, one for each 50 men, and one for each 50 women, or fraction thereof, of the maximum number of persons occupying such tract at any time. No camp or picnic spot within such tract shall be at a greater distance than 400 feet from both a men's and a women's toilet. The location of all toilets shall be plainly indicated by signs.

Section 4. Supervision and equipment sufficient to prevent littering of the ground with rubbish, garbage or other refuse shall be provided and maintained. Fly-tight depositories for such materials shall be provided and conspicuously located. Each and every camp or picnic spot on said tract shall be within a distance of not over 200 feet of such a depository. These depositories shall not be permitted to become foul-smelling or unsightly or breeding places for flies.

Section 5. The method of final sewage or refuse disposal utilized in connection with the operation of any camp or picnic ground shall be such as to create no nuisance.

Section 6. At least one caretaker shall be employed by the management to visit said tract every day that campers or picnickers occupy said tract. Such caretaker shall do whatever may be necessary to keep said tract and its equipment in a clean and sanitary condition.

Section 7. The management of every public camp or picnic ground shall assume responsibility for maintaining in good repair all sanitary appliances on said ground, and shall promptly bring such action as is necessary to prosecute or eject from such ground any person that wilfully or maliciously damages such appliances or any person that in any other way fails to comply with these regulations.

Section 8. Each and every owner and lessee of any public camp or picnic ground shall be held responsible for full and literal compliance with these regulations.

Section 9. Failure on the part of the owner or management of any camping ground to comply with the foregoing regulations shall be deemed sufficient cause for declaring the premises a public nuisance under the provisions of Section 370 of the Penal Code of California.

Section 10. These regulations shall be printed and kept posted in conspicuous places on every public camp or picnic ground by the management of such ground.

BUREAU OF COMMUNICABLE DISEASES.

REPORT FOR APRIL AND MAY, 1921.

DIVISION OF THE HYGIENIC LABORATORY.

W. H. KELLOGG, M. D., Director.

The tabulation of laboratory work has always been unsatisfactory in that it gave no intelligent idea of the actual volume of work performed. Some laboratories and some laboratory workers suffered by comparison with others doing a larger number of tests but of a kind involving less time per test.

A system of unit values has been devised to be used in reporting laboratory work and for use in estimating the output of individual workers, which it is believed will go far toward equalizing matters. This method with properly adjusted values is plainly the only just method of appraising the work either of individuals or of laboratories. The use of such a table of unit values will also make possible the calculation of unit costs as a means of comparing different groups and different years of work on an efficiency basis.

In carrying out this plan in the laboratories of the California State Board of Health, the following table of values is used as shown in the following tabulations:

	Units
Examination of throat swabs for diphtheria	1
Examination of sputum for tubercle bacilli	3
Wassermann test	5
Complement fixation test for gonococcus infection	5
Examination of feces for typhoid or bacillary dysentery:	
For a negative result	5
For a positive result	20
Examination of slides for gonococcus	4
Miscellaneous examinations	5
Widal test	10
Rabies treatments, per patient per day	10
Diphtheria virulence tests	20
Blood slides for malaria	25
Tuberculosis, by animal inoculation	40
Rabies examinations	50

Report of Examinations Made by the California State Hygienic Laboratory During the Month of April, 1921.

Condition suspected	Positive	Negative	Inconclusive	Total	Units
Diphtheria	261	955	[1]57	1,273	1.273
*Diphtheria (special investigation)	104	720	[2]8	832	832
Diphtheria (virulence test)	1	3		4	80
Dysentery (blood)		1		1	5
Gonococcus infection	35	76	35	146	584
Malaria	2	25		27	675
Meningitis	1			1	5
Rabies	4	12		16	800
Syphilis (Wassermann test)	231	970	138	1,339	6,695
Tuberculosis (sputum)	50	160		210	630
Typhoid (excreta)	1	14		15	90
Typhoid (Widal test)	10	36	1	47	470
Miscellaneous				7	35
Pasteur treatments				242	2,420
Totals				4,160	14,594

*Huntington Park 77; Alhambra 39; Manhattan Beach 192; Olinda 367; Fullerton 69; Whittier 42; San Mateo 46.

[1] 57 no growth. [2] 8 no growth.

Summary of Examinations Made in the California State Hygienic Laboratory During the Month of April, 1921.

Condition suspected	Positive	Negative	Inconclusive	Total	Units
Main laboratory at Berkeley:					
Diphtheria	94	287	[1]42	423	423
*Diphtheria (special investigation)		38	[2]8	46	46
Diphtheria (virulence test)	1	3		4	80
Dysentery (blood)		1		1	5
Gonococcus infection	20	33	28	81	324
Malaria	2	18		20	500
Meningitis	1			1	5
Rabies	3	11		14	700
Syphilis (Wassermann test)	231	970	138	1,339	6,695
Tuberculosis (sputum)	37	110		147	441
Typhoid (excreta)		7		7	35
Typhoid (Widal test)	5	13	1	19	190
Miscellaneous				5	25
Pasteur treatments				125	1,250
				2,232	10,719
Southern Branch at Los Angeles:					
Diphtheria	167	664	[3]15	846	846
**Diphtheria (special investigation)	104	682		786	786
Gonococcus infection	15	43	7	65	260
Malaria		4		4	100
Rabies	1	1		2	100
Tuberculosis (sputum)	11	49		60	180
Typhoid (excreta)	1	7		8	55
Typhoid (Widal test)	5	21		26	260
Miscellaneous				2	10
Pasteur treatments				28	280
				1,827	2,877
Northern Branch at Sacramento:					
Diphtheria		4		4	4
Malaria		3		3	75
Tuberculosis (sputum)	2	1		3	9
Typhoid (Widal test)		2		2	20
Pasteur treatments				89	890
				101	998
				4,160	14,594

*San Mateo. **Huntington Park 77; Alhambra 39; Manhattan Beach 192; Olinda 367; Fullerton 69; Whittier 42.

[1]42 no growth. [2]8 no growth. [3]15 no growth.

PREVENTIVE THERAPEUTICS.

Pasteur Treatments for the Prevention of Rabies by the State Hygienic Laboratory During the Month of April, 1921.

	Treatment commenced	Treatment completed
Main Laboratory at Berkeley	5	6
Northern Branch at Sacramento	3	4
Southern Branch at Los Angeles	5	0
Laboratory of Sacramento Board of Health, by deputized bacteriologist	0	0
Laboratory of San Francisco Board of Health, by deputized bacteriologist	0	0
Laboratory of Los Angeles City Board of Health, by deputized bacteriologist	0	0
Laboratory of San Diego City Board of Health, by deputized bacteriologist	0	0
Laboratory of Letterman General Hospital, Presidio, by deputized bacteriologist	0	0
Laboratory of United States Naval Hospital, Mare Island, by deputized bacteriologist	0	0

Vaccine Issued by the State Hygienic Laboratory During the Month of April, 1921.

Mixed typhoid-paratyphoid vaccine:

Number of physicians and institutions to whom vaccine was sent	3
Amount of vaccine sent	153 c. c.

Ophthalmia Neonatorum Prophylactic Outfits Distributed During the Month of April, 1921.

Number of outfits, containing two ampoules each, issued	1,012

PUBLIC HEALTH INSTRUCTION.

Participation in Instruction in Public Health During April, 1921.

Main Laboratory at Berkeley:

Bacteriological instruction outfits received	1
Bacteriological instruction outfits sent out	2

DIVISION OF PARASITOLOGY.

Summary of Examinations Made in the Division of Parasitology During the Month of April, 1921.

Total specimens examined			308
Protoza:		Worms:	
Endamoeba dysenteriae	30	Hookworm	6
Flagellates:		Ascaris	1
Giardia	14	Oxyuris verm.	1
Chilomastix	12	Oxy. incog.	6
Trichomonas	6	Trichuris	7
Specimens completely negative			225
Total number of patients examined			195

Summary of Examinations Made in the California State Hygienic Laboratory During the Month of May, 1921.

Condition suspected	Positive	Negative	Inconclusive	Total	Units
Main Laboratory at Berkeley:					
Diphtheria	129	293	[1]28	396	396
*Diphtheria (special investigation)	40	181	[2]4	225	225
Diphtheria (virulence test)	2			2	40
Gonococcus infection	20	32	46	98	392
Malaria	1	24		25	625
Rabies	6	7		13	650
Syphilis (Wassermann test)	248	918	62	1,228	6,140
Tuberculosis (sputum)	37	106		143	429
Tuberculosis (urine)		1		1	40
Typhoid (excreta)		3		3	15
Typhoid (Widal test)	1	23		24	240
Miscellaneous				1	5
Pasteur treatments (inoculations)				21	210
Totals				2,180	9,407
Southern Branch at Los Angeles:					
Diphtheria	73	346	[3]5	424	424
**Diphtheria (special investigation)	1	39		40	40
Dysentery (excreta)		1		1	5
Gonococcus infection	8	71	4	83	332
Rabies	1	3		4	200
Tuberculosis (sputum)	7	41		48	144
Typhoid (excreta)		9		9	45
Typhoid (Widal test)	4	19		23	230
Miscellaneous				5	25
Pasteur treatments (inoculations)				135	1,350
Totals				772	2,795
Northern Branch at Sacramento:					
Diphtheria	1	8		9	9
Malaria		2		2	50
Tuberculosis (sputum)	1	3		4	12
Typhoid (Widal test)	1	3		4	40
Pasteur treatments				81	810
Totals				100	921
				3,052	13,123

*Ross 171; Ukiah 54. **Whittier 28; Los Angeles County 12.

[1] 28 no growth. [2] 4 no growth. [3] 5 no growth.

DIVISION OF PARASITOLOGY.

Summary of Examinations Made in the Division of Parasitology During the Month of May, 1921.

Total specimens examined	224
Total examinations for protozoa	224
Total examinations for worms	207

Positive examinations:

Protozoa:		Worms:	
Endamoeba dysenteriae	19	Hookworm	7
Flagellates:		Oxyuris verm.	2
Giardia	4	Oxy. incog.	3
Chilomastix	2	Trichuris	5

Report of Examinations Made by the California State Hygienic Laboratory During the Month of May, 1921.

Condition suspected	Positive	Negative	Inconclusive	Total	Units
Diphtheria	203	593	[1]33	829	829
*Diphtheria (special investigation)	41	220	[2]4	265	265
Diphtheria (virulence test)	2			2	40
Dysentery (excreta)		1		1	5
Gonococcus infection	28	103	50	181	724
Malaria	1	26		27	675
Rabies	7	10		17	850
Syphilis (Wassermann test)	248	918	62	1,228	6,140
Tuberculosis (sputum)	45	150		195	585
Tuberculosis (urine)		1		1	40
Typhoid (excreta)		12		12	60
Typhoid (Widal test)	6	45		51	510
Miscellaneous				6	30
Pasteur treatments (inoculations)				237	2,370
Totals				3,052	13,123

*Ross 171; Ukiah 54; Whittier 28; Los Angeles County 12.

[1] 33 no growth. [2] 4 no growth.

PREVENTIVE THERAPEUTICS.

Pasteur Treatments for the Prevention of Rabies by the State Hygienic Laboratory During the Month of May, 1921.

	Treatment commenced	Treatment completed
Main Laboratory at Berkeley	1	1
Northern Branch at Sacramento	9	3
Southern Branch at Los Angeles	3	6
Laboratory of Sacramento Board of Health, by deputized bacteriologist	0	0
Laboratory of San Francisco Board of Health, by deputized bacteriologist	0	0
Laboratory of Los Angeles City Board of Health, by deputized bacteriologist	0	0
Laboratory of San Diego City Board of Health, by deputized bacteriologist	0	0
Laboratory of Letterman General Hospital, Presidio, by deputized bacteriologist	0	0
Laboratory of United States Naval Hospital, Mare Island, by deputized bacteriologist	0	0

Vaccine Issued by the State Hygienic Laboratory During the Month of May, 1921.

Mixed typhoid-paratyphoid vaccine:

Number of physicians and institutions to whom vaccine was sent	4
Amount of vaccine sent	534 c. c.

Ophthalmia Neonatorum Prophylactic Outfits Distributed During the Month of May, 1921.

Number of outfits, containing two ampoules each, issued	437

PUBLIC HEALTH INSTRUCTION.

Participation in Instruction in Public Health During May, 1921.

Main Laboratory at Berkeley:

Bacteriological instruction outfits received	0
Bacteriological instruction outfits sent out	1

BUREAU OF SOCIAL HYGIENE.

REPORT FOR APRIL AND MAY, 1921.

W. M. DICKIE, M. D., Acting Director.

A series of four conferences on "Social Hygiene in Education" was held under the auspices of the United States Public Health Service, the United States Department of Education and the Bureau of Social Hygiene of the State Board of Health. These conferences comprised ten programs—the first two were held at the Palace Hotel, San Francisco, on April 1; two at the Oakland Hotel, Oakland, on April 2; two at the Lincoln High School, San Diego, on April 5; and four at the Alexandria Hotel, Los Angeles, on April 8 and 9. The Los Angeles meetings were held jointly with the Southern California Science and Mathematics Association.

Considerable interest was shown by the educators throughout the state, and it was only through the courtesy and cooperation of the superintendents of schools and others that the conferences were possible. In each instance the school department furnished the mailing lists and urged the teachers to be present. More than three thousand were in attendance during the series.

As a result of these conferences the Bureau of Social Hygiene has had numerous requests for assistance along educational lines, and also for the film "How Life Begins," and it has been necessary to purchase two additional films in order to meet the demand.

SUMMARY REPORT OF THE BUREAU OF SOCIAL HYGIENE FOR PERIOD APRIL 1–30, 1921.

Reports received by the Bureau:
- San Diego Clinic.
- San Bernardino Clinic.
- Los Angeles Health Department Clinic.
- Boyle Avenue Dispensary—Adult.
- Boyle Avenue Dispensary—Children's.
- Graves Dispensary, Los Angeles.
- Pasadena Dispensary.
- Good Cheer Club, San Jose.
- Stockton City Clinic.
- San Francisco Health Department.
- Stanford University Clinic, San Francisco.
- Alameda County Health Center, Oakland.

Number of new cases admitted to clinics during month	315
Number of new cases treated	2,213
Number of new cases brought in by Social Workers	53
Cases discharged or discontinued treatment	355
Visits to clinics for treatment, examination or advice	4,366
Number of cases reported by physicians:	
Syphilis	244
Gonorrhœa	297
Number of doses arsphenamine distributed by the Bureau	70
Number of doses arsphenamine administered by clinics in April	1,343
Laboratory examinations:	
Wassermann tests	2,319
Microscopic examinations for gonorrhœa	574
Requests for pamphlets received	99
Pamphlets distributed	11,175

Number of lectures given	43	Total attendance	4,027
Number of slide showings	1	Total attendance	30
Number of film showings	14	Total attendance	4,610

Number of visits made by Social Workers of Bureau:	
(a) To cities (10,000 population and over)	21
(b) To rural communities (under 10,000)	10

ARSENOBENZOL REPORT FOR APRIL, 1921.

Number of Ampoules Distributed by the Bureau During April, 1921.

Boyle Avenue Dispensary	12
Arroyo Sanitarium	10
Garfield School, Santa Monica	12
County Health Officer, Orange	24
Alameda City Clinic	12
Total	70

Treatment reports received—

18 patients received 1 dose	18
3 patients received 2 doses	6
3 patients received 3 doses	9
4 patients received 4 doses	16
1 patient received 5 doses	5
	54

Patients treated—

Patient	1
22 school children	22
Housewife	1
No occupation	1
Laborers	2
Babies	2
	29
Males	12
Females	17
	29

Treatments given by—

Boyle Avenue Dispensary	14
Stanford Medical School	11
Arroyo Sanitarium	1
Orange County Health Officer	3
	29

Total number of ampoules distributed	22,824
Total number of treatment cards received	22,750

EXTRACTS FROM CASE REPORTS IN LOS ANGELES OFFICE.

The following cases were brought into the Psychopathic Court in very bad condition, physically and mentally; were paroled to Resthaven and referred to the field worker connected with the Bureau of Social Hygiene. The field worker placed these cases under treatment at the clinic and followed them closely, taking the patients to and from the clinic twice a week—some of them since the middle of December.

No. 2——Mrs. ————Blood test positive:

Treated at clinic since December 13. Condition so greatly improved since commencing treatment that patient has been released on her own responsibility. Is continuing treatment under supervision of Bureau's field worker. Last two Wassermanns were negative.

No. 6689—Blood test—4 plus:

Mother of three children. Being treated at clinic since January 10. Condition improved to such an extent since commencing treatment that she was permitted to return to her home. Is still taking treatment under supervision of Bureau's field worker.

No. 6883—Blood test—4 plus:

Brought into Psychopathic in very bad condition. Placed in Resthaven. Referred to Bureau's field worker and has since been under treatment at the clinic. Improvement so great that patient has been permitted to return home to her husband and mother. Is continuing treatment under field worker's supervision.

No. 6711—Blood test—4 plus:

Sent to Resthaven in very bad condition. Referred to field worker and placed under treatment at clinic. Mental condition much improved since commencing treatment. Has been permitted to return to home, under care of husband. Is continuing treatment under supervision of field worker.

No. 6381—Blood test—4 plus:

Paroled to Resthaven. Referred to field worker and placed under treatment at clinic. Patient's mental condition clearing up to such an extent that doctors anticipate releasng her to the care of her husband. She will continue treatment under the supervision of the field worker until dismissed.

Psychopathic Cases.

Referred by	Number of patients	Members of family	Calls made	Wassermans taken—Positive	Wassermans taken—Negative	Total	Letters	Members of family placed under treatment
County Farm	4	2					5	
Insanity Commission	2	2	1				4	1
Norwalk	48	63	33	9	19	28	48	5
Patton	30	18	22	3	2	5	31	4
Psychopathic Court	90	99	63	15	38	53	53	7
Totals	174	184	119	27	59	86	141	17

Total number of patients under treatment	174
Total number of members of patients' families under treatment	17
Total number of people referred to this Bureau (psychopathic cases) under treatment	191

BUREAU OF VITAL STATISTICS.

REPORT FOR MARCH, 1921.

L. E. Ross, Director.

The following analyses are made monthly by the Bureau of Vital Statistics and can be furnished upon application:

Births:
- Counties and cities by sex, race and maternal nativity.
- Age of mother by race and number of previous issue.
- Stillbirths by county and city.

Deaths:
- Counties and cities by sex, race and nativity.
- Counties and cities by principal causes of death.
- Cause of death (detailed International list) by sex, race, nativity and age.

Tuberculosis deaths:
- County and city by sex, race, nativity, age, length of residence and occupation.

Infant mortality (deaths under 1 year of age):
- Counties and cities by sex, race and maternal nativity.
- Principal causes of death by age groups.

Marriages:
- County totals.
- Nativity of bride and groom, correlated.
- Marital condition of bride and groom, correlated.
- Age of bride and groom.
- Race of contracting parties.

The mortality record for March was very favorable compared with the same month last year (4096 deaths compared with 4552 for March, 1920) giving an annual death rate of 13.7, slightly higher than the total crude rate for 1920. The provisional mortality rate for the first three months of 1921 is 13.9. The corresponding rate for last year was 17.3. These are scarcely comparable, however, on account of the high mortality from influenza during the early part of last year.

The provisional birth returns for March are slightly lower than the corresponding month last year, 5744 March births having been registered in March. Delayed registrations will undoubtedly bring this figure above the 5768 for March, 1920. The provisional birth rate for the first three months of the year is considerably below the figures for the corresponding period last year. In 1920 the rate for the first quarter was 19.3. Thus far this year it is 18.1. As a matter of fact, however, there have already been received 1067 certificates delayed from January and February this year and estimating 450 to be later added to March brings the total to 17,728 for the present quarter, or an annual rate of 19.8, which is higher than the 1920 record for the same period computed on complete returns. The last two years have broken all records for marriages in this state and indications are that during the present year this will be reflected in the birth rate.

	March		Indicated annual rate—March		January to March, 1921	
	1921	1920	1921	1920	Number	Annual rate
Births	5,744	5,768	19.2	19.9	16,211	18.1
Deaths	4,096	4,552	13.7	17.3	12,476	13.9
Marriages	3,152	2,999	10.5	10.3	9,270	10.3

Measles increased from 18 deaths in February to 29 in March. This year so far is, however, much better than the corresponding period last year, so far as measles is concerned. During the first three months last year 94 deaths resulted from this disease. During the same period this year 55 deaths have been registered. There was a slight reduction during the present month in the mortality from scarlet fever, 12 deaths having been registered. The record thus far for 1921 is higher than for the corresponding period last year. There were thirty deaths from scarlet fever during the first quarter of 1920 and 41 deaths during the same period this year.

There was a sharp increase in the mortality from whooping cough during the present month. There were six deaths in February and 21 in March. Thus far whooping cough mortality has been less than measles. This was also true during the first part of the epidemic in 1920, except that whooping cough took the lead over measles in March last year.

Diphtheria mortality is still high, with a slight increase for March. There were 42 deaths last month and 44 this month.

The regular seasonal increase in deaths from tuberculosis was continued during March, 505 fatalities being registered. This brings the total for the quarter up to 1,460. In the same period last year there were 1,563. Last year the highest mortality from tuberculosis occurred in January, with a decrease in February, and an increase to another peak in March. The same feature was noted in 1919. This year, however, the rise has been steady for the three months.

Pneumonia continued to decrease during March, 339 deaths occurring. Indications are that the worst is over for this year, with a materially better situation. During the first quarter of 1920 there were 1,563 deaths from pneumonia. During the same period for this year 1,144 have been registered.

Another increase in the mortality from diarrhoea and enteritis occurred in March; 70 deaths were registered, 48 being children under two years of age. Nevertheless this is well under the low mark for 1920, 74 deaths in March last year. In 1919, March marked the beginning of the seasonal rise in mortality from this cause, while the rise in 1920 did not begin until the following month.

There were 9 typhoid deaths registered this month, the same number as for March last year. A feature of typhoid mortality thus far this year is the low mark last month—two deaths.

Another death from smallpox occurred in March, bringing the total up to 6 for the first quarter of 1921. This last case was an Indian baby in Shasta County. During the entire year 1920, there were 7 deaths from smallpox.

Infant deaths increased during March, 403 deaths being registered, against 369 in February. The present month, however, is lower than the same month last year, 468 infant deaths having occurred in March, 1920. Infant deaths from principal causes follow:

	March, 1921	
	Deaths	Per cent
Communicable diseases	42	10.4
Diseases of the respiratory system	63	15.6
Diseases of the digestive system	53	13.2
Congenital causes	206	51.1
All other	39	9.9
Totals	403	100.0

The feature of the above is the large proportion of deaths from congenital causes. This is reflected in the ages of infants dying in March as indicated by the figures below. It will be noted that the relative mortality under one month of age was much higher during March than for 1920 as a whole.

	Per cent of total	
	1920	March, 1921
Under 1 day	18.9	21.6
1 to 10 days	19.7	25.3
11 days to 1 month	9.7	10.4
1 month	9.1	7.7
2 months	6.9	5.0
3 months	6.3	5.5
4 to 6 months	13.1	10.4
7 to 9 months	11.0	8.2
10 to 12 months	5.8	6.0
Totals	100.0	100.0

BIRTHS, INFANT DEATHS, TOTAL DEATHS AND DEATHS FROM SELECTED CAUSES IN COUNTIES AND CITIES, CALIFORNIA.

Provisional Data for March, 1921.

County, City	District number	Total live births	Total infant deaths	Total deaths	Typhoid fever	Malaria	Smallpox	Measles	Scarlet fever	Whooping cough	Diphtheria	Influenza	Poliomyelitis	Encephalitis lethargica	Meningococcus meningitis	Tuberculosis, lungs	Tuberculosis, other	Venereal	Pneumonia	Puerperal
Totals		5,744	403	4,096	9	4	1	29	12	21	44	49	1	11	7	442	63	36	339	42
1. Alameda	0100	59	6	60							1					13			6	3
2. Oakland	0101	339	13	172							4					10	5		22	
3. Alameda	0102	49	3	33							1	2							2	
4. Berkeley	0103	91	5	67							1				1	4		1	6	1
5. San Leandro	0104	7	1	2												1				
6. Alpine	0200																			
7. Amador	0300	13	3	9												1	1	1	1	
8. Butte	0400	32	4	19						1				1					2	
9. Chico	0401	30		12					1		1	2							3	
10. Calaveras	0500	6	1	8																
11. Colusa	0600	15	2	7												3				
12. Contra Costa	0700	41	3	22												2			1	1
13. Richmond	0701	45	4	17							1								3	1
14. Del Norte	0800	1		3																
15. El Dorado	0900	4		5																
16. Fresno	1000	183	15	96		1			1			10		1		16		2	10	
17. Fresno	1001	100	13	64				2	2	1	1	4				5	2		6	2
18. Glenn	1100	16	2	13					1							1	1			
19. Humboldt	1200	17	2	16															4	
20. Eureka	1201	37		13													2		1	
21. Imperial	1300	38	6	25						1						2			5	
22. Brawley	1301	14	1	7												3			2	
23. Calexico	1302	16	1	4															1	
24. El Centro	1303	18	2	6															1	1
25. Inyo	1400	10		4																
26. Kern	1500	74	1	23		1									1	6			2	
27. Bakersfield	1501	59	3	25							1				1	1		1		1
28. Kings	1600	20		7								1				2				
29. Hanford	1601	14		6													1			1
30. Lake	1700	7		3												1				
31. Lassen	1800	8	2	5																
32. Los Angeles	1900	268	20	227	1			4			3			1		45		1	7	2
33. Los Angeles	1901	1,029	69	726	2	1		11	6	1	5	2	1	2	2	74	16	7	47	7

34. Alhambra	1902	18		8																
35. Long Beach	1903	86	6	83							1	1				8			3	
36. Pasadena	1904	95	3	54	1									1		6			3	2
37. Pomona	1905	32	2	18							1						1			
38. Santa Monica	1906	40	2	29															2	1
39. Glendale	1907	15	3	36												4	1	1	1	
40. Monrovia	1908	7	1	10												6				
41. Redondo Beach	1909	6		8												1	1		1	
42. Whittier	1912	18		5																
43. South Pasadena	1913	4		11												1			1	
44. Venice	1914	3		8														1		
45. Madera	2000	18	1	16							2	2				2				
46. Marin	2100	9		12												2			1	
47. San Rafael	2101	7	2	5													1			
48. Mariposa	2200	2		1						1										
49. Mendocino	2300	23	2	26				2		1		1				3			2	
50. Merced	2400	31	2	26		1												2	3	
51. Modoc	2500	8		3																
52. Mono	2600	35																		
53. Monterey	2700	14		17								1				1			2	
54. Monterey	2701			3															1	
55. Napa	2800	8		38								1				4			7	
56. Napa	2801	11		11	1											1				
57. Nevada	2900	14	1	9												2				1
58. Orange	3000	76	3	37							1	1				5			1	1
59. Santa Ana	3001	30	1	13												1	2		2	1
60. Anaheim	3002	14	1	11							1					1			2	
61. Placer	3100	35	3	26												11		2	2	
62. Plumas	3200	6	1	8								1							1	
63. Riverside	3300	46	5	27												7			1	
64. Riverside	3301	32	2	35				3								9			3	1
65. Sacramento	3400	47	3	18						1						2				
66. Sacramento	3401	127	11	99										2		15	2		13	2
67. San Benito	3500	22	3	12												2			2	
68. San Bernardino	3600	85	7	43						2						7	1	1	1	
69. Redlands	3601	15		14								1				3			1	
70. San Bernardino	3602	41	4	35				1								9			2	
71. Ontario	3603	16	4	11				2											1	
72. San Diego	3700	55	3	30												5	2		1	
73. San Diego	3701	137	13	133						1	1					22	3	2	5	
74. San Francisco	3801	702	55	638	3			2		2	10	5				47	11	4	63	5
75. San Joaquin	3900	85	3	87							2	1				11		1	6	1
76. Stockton	3901	98	8	58						1						3		2	11	1
77. San Luis Obispo	4000	34		13												2			2	
78. San Luis Obispo	4001	15		9												1				
79. San Mateo	4100	37	1	27								1				9			1	
80. San Mateo	4101	10	2	11													1			1
81. Santa Barbara	4200	37	2	14	1														1	1

BIRTHS, INFANT DEATHS, TOTAL DEATHS AND DEATHS FROM SELECTED CAUSES IN COUNTIES AND CITIES, CALIFORNIA.

Provisional Data for March, 1921—Continued.

County, City	District number	Total live births	Total infant deaths	Total deaths	Typhoid fever	Malaria	Smallpox	Measles	Scarlet fever	Whooping cough	Diphtheria	Influenza	Poliomyelitis	Encephalitis lethargica	Meningococcus meningitis	Tuberculosis, lungs	Tuberculosis, other	Venereal	Pneumonia	Puerperal
82. Santa Barbara	4201	34	4	21												1	1		6	
83. Santa Clara	4300	73	5	101					1	1	3	1		1		11	2	1	12	
84. San Jose	4301	78	5	45						1		1		1		3		1	6	
85. Palo Alto	4302	18	1	17																
86. Santa Clara	4303	7		6								1				1				
87. Santa Cruz	4400	11		9															1	
88. Santa Cruz	4401	17	2	20																
89. Watsonville	4402	7	1	11													1			
90. Shasta	4500	28	3	23			1					2				2			5	
91. Sierra	4600			4																
92. Siskiyou	4700	28	2	10								1				2				
93. Solano	4800	33	1	18															2	
94. Vallejo	4801	36	1	19										1		1			3	
95. Sonoma	4900	42	3	35						1	3	3					1		2	
96. Petaluma	4901	14	4	14												1			1	
97. Santa Rosa	4902	14	1	18												3			1	
98. Stanislaus	5000	50	2	16				2											2	
99. Modesto	5001	39	2	16												1	1	1		1
100. Sutter	5100	4		7												2				
101. Tehama	5200	22	3	19						1						2			5	
102. Trinity	5300	2		2																
103. Tulare	5400	95	5	35						1						2		1	2	2
104. Visalia	5401	13	3	9												1				
105. Tuolumne	5500	14	2	8															1	
106. Ventura	5600	47	8	28								3				5			3	
107. Yolo	5700	35	1	19													2		4	
108. Yuba	5800	5	1	5															2	
109. Marysville	5801	12	1	9												1				1

DEATHS FROM PRINCIPAL CAUSES—CALIFORNIA.

Provisional Data for March, 1921.

		Total deaths	Per cent of total
	All causes	4,096	--------
1.	Typhoid fever	9	0.2
2.	Malaria	4	0.1
3.	Smallpox	1	--------
4.	Measles	29	0.7
5.	Scarlet fever	12	0.3
6.	Whooping cough	21	0.5
7.	Diphtheria	44	1.1
8.	Influenza	49	1.2
9.	Dysentery	4	0.1
10.	Poliomyelitis	1	--------
11.	Encephalitis lethargica	11	0.3
12.	Meningococcus meningitis	7	0.2
13.	Tuberculosis, respiratory system	442	10.8
14.	Tuberculosis, other	63	1.5
15.	Venereal diseases	36	0.9
16.	Other general epidemic diseases	31	0.8
17.	Cancer	312	7.6
18.	Other general diseases	138	3.4
19.	Diseases of the nervous system	422	10.3
20.	Diseases of the circulatory system	769	18.8
21.	Pneumonia	339	8.3
22.	Other diseases respiratory system	59	1.4
23.	Diarrhea and enteritis under 2 years	48	1.2
24.	Diarrhea and enteritis 2 years and over	22	0.5
25.	Other diseases, digestive system	205	5.0
26.	Nephritis	286	7.0
27.	Other non-venereal, genito-urinary system	49	1.2
28.	The puerperal state	42	1.0
29.	Diseases of skin and cellular tissue	12	0.3
30.	Diseases of bones and organs of locomotion	12	0.3
31.	Malformations	39	1.0
32.	Diseases peculiar to early infancy	170	4.2
33.	Senility	42	1.0
34.	Suicide	89	2.2
35.	Other external causes	277	6.8
36.	Ill defined and unknown	--------	--------

BUREAU OF SANITARY ENGINEERING.

REPORT FOR THE PERIOD OF APRIL 16 TO JUNE 15, INCLUSIVE.

By Ralph Hilscher, C. E., Director.

WATER SUPPLY OF IMPERIAL VALLEY.

For several years past the Bureau has been making analyses at regular intervals of water samples from several cities in Imperial Valley and a summary of the results is here presented.

The supply of this valley is derived from the Colorado River, being diverted a few miles below Yuma, Arizona, and conducted across the desert about fifty miles in an open ditch to Calexico at the southern end of the valley. From there water is carried in a complicated system of ditches through the developed district as far north as Niland, about forty miles above Calexico.

The water is extremely muddy most of the time. It is also subject to sewage contamination at Yuma as well as miscellaneous stock and human contamination within the developed portion of the valley. Being a reclaimed arid desert the valley has no other water supply than the ditches. In a way, it is fortunate for the people of this valley that the water is so extremely muddy and unattractive in its raw state as this fact induces practically everyone to purify the water to a certain degree before drinking it. In the rural districts this purification consists usually of allowing the water to settle and then straining it through a small stone household filter designed for the purpose. Of the various cities in the valley two operate sand filters following settling in large basins. One of these also chlorinates the water. The other cities merely settle the water before pumping it into the mains and the majority of users in those cities have household filters.

Our analyses averaged and summarized in the following table give a general idea as to the degree of purification obtainable by these processes:

Kind of sample	Turbidity		Total bacteria		B. Coli	
	Number of samples averaged	Parts per million	Number of samples averaged	Count per cubic centimeter	Number of samples averaged	Count per cubic centimeter
Raw ditch water	40	3,600	36	29,300	44	13+
Settled water	59	116	47	2,460	60	2
Sand filter effluent	58	14	22	1,775	31	1
Chlorinated sand filter effluent	----------	----------	23	140	29	0.2
Household filter effluent	12	11	3	1,170	12	1.9

Certain conclusions may be drawn from these results and from a general consideration of local conditions:

The raw water in the ditches in the Imperial Valley is dangerously contaminated, although the danger due to sewage pollution at Yuma is probably somewhat reduced by natural agencies during the four or five days travel in the main ditch from the Colorado River to the valley.

Mere clarification of the water by settling for a few hours reduces the average turbidity about 97 per cent, reduces the average total bacteria count about 92 per cent and reduces the average B. Coli count more than 85 per cent. This treatment serves as a valuable safeguard to persons drinking settled water, but the settled water can by no means be considered as safe for drinking purposes, judged by comparison with accepted good supplies elsewhere.

REPORT FOR THE PERIOD APRIL 16 TO MAY 15, INCLUSIVE.

SEWAGE DISPOSAL.

Plans and reports received by Bureau:
- Additional plans for Burbank sewage disposal.
- Proposed sewer system for East San Diego.
- Biggs, final plans for treatment plant.

Permit applications received:
- Biggs, to construct sewer system, Imhoff tank, sprinkling filters and sludge bed.
- Stockton, to construct an Imhoff tank to serve south half of city.

Permits granted:
- Stockton, to construct Imhoff tank on the south outfall.

Complaints received:
- Disposal of sewage into San Anselmo Creek, which is used for bathing purposes.
- Whittier, sewer farm odors.
- Disposal of sewage and industrial waste at Corona.

Inspections made:
- Sewage treatment plant at Alameda County Tuberculosis Sanitarium.
- Sewage treatment plant at Manteca.
- Sewage disposal at Modesto.
- Activated sludge plant at Turlock.
- Sewage disposal plant at Sonoma State Home.
- Sewage disposal plant at Veteran's Home, Yountville.
- Lodi, Represa, Folsom, Burbank, La Mesa, Anaheim, Fullerton.
- Proposed Tri-City treatment site on Rio Hondo.
- Culver City proposed treatment site.
- Whittier sewer farm.

Conferences:
- Mr. Knowlton, Los Angeles.
- Messrs. Olmstead & Stone, regarding Blythe and Glendale.
- City officials of Burbank and Los Angeles, regarding Burbank.
- Mr. Staheli, Hermosa Beach.
- Messrs. Louraine, Orbison, Dewey and Kroiner re Tri-City sewage disposal.
- Mr. Watson, Glendale.
- Messrs, Wright & Todd, re Whittier treatment plant.
- Mr. Waterman, Blythe.
- C. E. Sloan, re Biggs Disposal Plant.
- C. C. Kennedy, re Susanville sewerage system.
- C. C. Kennedy, re outfall sewer of San Anselmo and vicinity.
- Conference in Los Angeles with experts employed on Los Angeles disposal project.
- Oakland sanitary inspector, re sewage disposal on watershed of Lake Temescal.
- Engineer of Golden State Asparagus Company, re disposal of sewage from plant near Isleton.

Reports completed: None.

WATER SUPPLY.

Plans and reports received by Bureau: None.

Permit applications received:
- Maricopa, West Side Water Co.: to supply water from springs located in Ventura County.

Permits granted: None.

Complaints received: None.

Inspections made:
- Healdsburg.
- Healdsburg, Camp Rose.
- Santa Rosa (municipal supply).
- Alameda County Tuberculosis Sanitarium, water-softening plant.
- Represa, Lodi, Sacramento, Cuyamaca Water supply, Huntington Beach.

Conferences:
Lodi—City Trustees, Mayor, City Engineer, City Treasurer, Superintendent of Public Works.
Mr. O. H. Stone, regarding Blythe.
Messrs. Palmer & Bellon, regarding San Diego.
Dr. Hibbin, regarding Pasadena supply.

Reports completed:
On new well for Reedley.

SWIMMING POOLS.

Plans or reports received by Bureau:
Preliminary plans, Pasadena Y. M. C. A.
Sketch of pool at Stuparich resort.

Permit applications received:
From Lagunitas Development Company, San Francisco, to construct Woodacre open air pool (Marin County).
Middletown, Lake County: Stuparich Resort pool.
Byron Springs Hotel Company, to construct Byron Hot Springs Baths.

Permits granted: None.
Complaints received:
Piedmont Baths—dirty water.

Inspections made:
Oakland: Piedmont Baths, Idora Park, Y. M. C. A., Y. W. C. A., U. C Men's Pool.
Fresno Natatorium.
Fresno Y. M. C. A.
Vallejo Industrial Y. M. C. A.
Selma Municipal Plunge.

Conferences:
With engineer regarding Woodacre open air pool.

Reports completed:
On Men's Pool, University of California.

GARBAGE.

Inspections made:
Vallejo incinerator.

MISCELLANEOUS.

A circular letter and questionnaire have been prepared and sent to all State Boards of Health, requesting information re experience with removal of tastes and odors from water supplies by means of aeration.

The Director is a member of the Program and the Swimming Pool Committees of the A. P. H. A. Engineering Section and a member of the Swimming Pool and the Water Supply Committees of the Association of State Sanitary Engineers. This has required considerable time and work recently.

LABORATORY.

Los Angeles office:	
Bacteriological examinations of water	68
Chemical examinations of water (partial)	68
Berkeley office:	
Bacteriological examinations of water	230
Chemical examinations of water (partial)	245
Sanitary chemical examinations of water	6
Bacteriological examinations of sewage	6
Chemical examinations of sewage	3
Examination of sludge	1
Bacteriological examinations of bathing suits	2
Total samples submitted	257

Filtration of the settled water through sand, as is practiced by the cities of Calexico and El Centro, still further reduces the contamination, but these filters at times are unable to yield an effluent of acceptable quality.

Household filters afford some slight protection against bacterial contamination in the water but the analyses show that large numbers of bacteria pass through them.

To our knowledge, the only regularly safe water supply in Imperial Valley is that at Calexico when the water is chlorinated.

Every year a number of typhoid fever cases develop in this valley and it is reasonable to believe that the water supply is at least partially responsible.

SUMMARY OF BUREAU'S WORK FOR MONTH ENDING JUNE 15.

Plans received by Bureau:
- Map showing sewer locations at San Quentin Prison.
- Plans of municipal water filter proposed by Los Banos.
- Gilroy, proposed forebay at dam.
- Proposed swimming pool at Roseville, preliminary sketches.

Permit applications received:
- Manteca, continue use of present sewage disposal plant and to construct Imhoff tank.
- Exeter, to bore a well and install pump for water supply.
- Tulare, to operate water supply system.
- Roseville, to construct and operate swimming pool (private).

Permits granted: None.

Complaints received: None.

Inspections made:
- Manteca, sewage disposal plant.
- Stockton, sewage plants.
- Folsom Prison, sewage disposal plant.
- Placerville sewage disposal.
- Placerville water supply, with reference to recommended purification.
- Sacramento water works under construction.
- Examination of contamination of Corte Madera Creek.
- Burbank water supply.
- Swimming pools at Berkeley: W. M. C. A., University California Men's pool, University California Women's pool, California School for Deaf and Blind.
- Oakland: Y. W. C. A., Idora Park, Neptune Beach.
- San Francisco: Lurline Baths.

Conferences:
- Consulting Engineer for Ceres sewer system.
- City Engineer for Lodi, re proposed sewage treatment.
- City Engineer for Burbank, re proposed sewer system and treatment plant.
- Engineer for Fresno, re needed improvements in sewage disposal.
- With Engineer re sewage treatment plant at Turlock.
- With Engineer for Petaluma, re proposed improvements in water supply.
- Mayor of City of Placerville, re chlorination of water supply.
- Engineer for proposed swimming pool at Atascadero.
- Engineer for Colusa municipal swimming pool.
- Owners of proposed new pool at Roseville.

Reports completed by Bureau:
- On Coalinga sewage disposal.
- On Madera sewage disposal.
- On Burbank sewage disposal.
- On La Mesa sewage disposal.

Special bulletin prepared for publication:
- "Disposal of Human Excrement in Unsewered Localities."

LABORATORY WORK.

Los Angeles office:	
Bacteriological examinations of water	70
Chemical examinations of water (partial)	70
Berkeley office:	
Bacteriological examinations of water	279
Chemical examinations of water (partial)	266
Sanitary chemical examinations of water	2
Bacteriological examinations of sewage	4
Chemical examinations of sewage	2
Examination of sludge	1
Analyses of sand	26
Total samples submitted	322

BUREAU OF FOOD AND DRUGS.

REPORT FOR APRIL AND MAY.

E. J. Lea, M. S., Director.

Three hundred and twenty-three samples of foods, drugs and miscellaneous materials were received at the laboratory during the month of April.

Official

Foods

Beverages		9
Apple cider	3	
Apricot cordial	1	
Grape juice	2	
Orange soda	1	
Raspberry syrup	1	
Strawberry	1	
Butter		1
Chocolate		2
Confectionery		15
Chopped meat		4
Egg, dried		2
Feeds		2
Fish		2
Ice Cream		5
Macaroni		13
Milk		1
Molasses		1
Noodles		7
Nuts		1
Preserves		15
Pumpkin		3
Spaghetti		2
Salad oil		1
Vermicelli		1
Vinegar		2
		89

Miscellaneous.

Aztec treatment	1
Antibacillaris	1
Citrate of magnesia	6
Clenosan	1
Mexifico	1
Pneumo-bactericide	1
Quinine tablets	1
Sweet oil	1
Sweet spirits of nitre	1
Toothache drops	1
Tincture iodine	2
Zendeja treatment	1
	18

Unofficial.

Catsup	6
Cholerine	1
Confectionery	4
Cream	4
Egg albumen	1
Eggs	1
Dried beef	1
Feeds	2
Fig bars	1
Fish	1
Fruits	3
Grape juice	1
Milk	4
Mushrooms	1
Noodles	1
Nuts	8
Olive oil	1
Olives	1
Preserver	1
Preserves	3
Pumpkin	1
Root beer	1
Sand	1
Sugar	1
Tomato products	3
	53

State Institutions.

Bread	2
Buttermilk	2
Butter	3
Catsup	3
Chicory	1
Cereals	11
Cheese	1
Cocoa	5
Coffee	3
Corn starch	3
Extracts	4
Feeds	16
Flour	11
Fruits	25
Fish	4
Charcoal	2
Gelatine	1
Lard substitute	1
Macaroni	1
Meat	3
Monarch cream	2
Olive oil	1
Oysters	2
Preserves	1
Rice	3
Salad oil	3
Saltpetre	1
Salt	4
Spaghetti	1
Spices	12
Sugar	4
Syrup	3
Tapioca	1
Tea	4
Soda	1
Vegetables	16
Vinegar	2
	163

Total officials	107
Total unofficials	53
Total state institutions	163
Total	323

CASES REFERRED TO DISTRICT ATTORNEYS AT APRIL MEETING.

Material	Offense	Dealer	Locality
Cider vinegar	Adulterated and mislabeled	Mrs. K. Lenner	San Jose.
Chopped meat	Contains SO_2	Sanitary Market	Venice.
Chopped meat	Contains SO_2	Peoples Meat Market	Dinuba.
Citrate of Magnesia	Does not conform to United States Pharmacopœia	Dolores Pharmacy	San Francisco.
Citrate of Magnesia	Does not conform to United States Pharmacopœia	McCabe's Pharmacy	San Francisco.
Grape tablets	Adulterated and mislabeled	Cosmopolitan Distributing Company	San Francisco.
Milk	Adulterated and mislabeled	J Simunovich and C. Matkovich	Watsonville.
Mocha coffee	Adulterated and mislabeled	H. E. Badger and Company	San Francisco.
Orange tablets	Adulterated and mislabeled	Cosmopolitan Distributing Company	San Francisco.

ARTICLES OF FOOD CONDEMNED UPON PHYSICAL AND CHEMICAL EXAMINATION AS UNFIT FOR FOOD—APRIL, 1921.

Material	Amount	Condition	Locality	Disposition
Apples	47 boxes	Decomposed	San Leandro	Hog feed.
Berries	3,048 No. 10 tins	Moldy	Los Angeles	Dumped.
Black figs, dried	322 25-lb. boxes	Fermented, wormy	San Francisco	Hog feed.
Bottled olives	11 8-oz. bottles	Unfit for human consumption	San Mateo	Dumped.
Cheese	10 cans (200 lbs.)	Unfit for human consumption	San Francisco	Burned.
Manchurian walnuts	1,185 100-lb. sacks	Rancid	Oakland	Chicken feed.
Salmon	7,100 lbs.	Unfit for human consumption	San Francisco	Fertilizer.
Tomato catsup	2,367 cases	Moldy	San Francisco	Dumped.
Tomato catsup	232 cases 14 cases	Moldy	San Francisco	Dumped.
Whole dry egg	32½ lbs.	Decomposed	Oakland	Destroyed.

CONVICTIONS UNDER FOODS AND DRUGS ACTS REPORTED DURING APRIL, 1921.

Name of article	Offense	Accused dealer	Locality	Result
Camphorated oil	Adulterated and mislabeled	Pacific Drug Company	Los Angeles	Fined $25
Cherry soda	Adulterated and mislabeled	American Bottling Works	Los Angeles	Fined 25
Chocolate	Adulterated and mislabeled	B. A. Crestetto	Oakland	Fined 10
Chopped meat	Adulterated	E. 7th St.	Los Angeles	Fined 25
Chopped meat	Adulterated	Lincoln Market	Los Angeles	Fined 25
Chopped meat	Adulterated	M. H. Mills Company	Whittier	Fined 25
Chopped meat	Adulterated	Newberry Market	Santa Monica	Fined 25
Chopped meat	Adulterated	Bracke's Market	Venice	Fined 25
Egg noodles	Adulterated and mislabeled	T. W. Bohnstedt	Los Angeles	Fined 75
Essence ginger	Adulterated and mislabeled	Taisho Drug Store	San Francisco	Fined 25
Ginger ale	Adulterated and mislabeled	Highland Ginger Ale Company	San Mateo	Fined 10
Maple fudge	Adulterated and mislabeled	Grand Sweet Shop	Los Angeles	Fined 50
Orange drops	Adulterated and mislabeled	Staples Candy Company	Los Angeles	Fined 25
Orangeade	Adulterated and mislabeled	M. Albera and F. P. Crockett	Santa Rosa	Fined 10
Raspberry soda	Adulterated and mislabeled	American Bottling Works	Los Angeles	Fined 25
Soy bean mixed feed	Adulterated and mislabeled	Soy Bean Company	Petaluma	Fined 75
Strawberry soda	Adulterated and mislabeled	American Bottling Works	Los Angeles	Fined 25
Sweet oil	Adulterated and mislabeled	Pacific Drug Company	Los Angeles	Fined 59

MATERIAL IN COLD STORAGE MAY, 1921.

Beer	50 bbls.
Beverages, miscellaneous	28,725 lbs.
Butter	324,139 lbs.
Candy	41,145 lbs.
Cereals	25,427 lbs.
Cheese	1,158,138 lbs.
Cider	4,947 bbls.
Chili	84,337 lbs.
Compound	2,523 lbs.
Condensed milk	24,450 lbs.
Cooking fats	62,489 lbs.
Eggs	5,122,340 doz.
Eggs, frozen	312,313 lbs.
Egg meat	246,758 lbs.
Egg, powdered	4,800 lbs.
Fish:	
Dried	264,013 lbs.
Fresh	9,630 lbs.
Miscellaneous	396,993 lbs.
Pickled	191,583 lbs.
Salmon	323,940 lbs.
Shell fish	46,670 lbs.
Smoked fish	150,100 lbs.
Fruit:	
Apples	21,133,919 lbs.
Apples, evaporated	2,268,500 lbs.
Apricots	1,467 lbs.
Berries	22,532 lbs.
Cranberries	2,700 lbs.
Currants	60 lbs.
Dates	432 lbs.
Grape Fruit	1,350 lbs.
Grapes	8,845 lbs.
Loganberries	78 lbs.
Miscellaneous	4,031,485 lbs.
Oranges	8,750 lbs.
Pears	176,454 lbs.
Persimmons	4,320 lbs.
Pomegranates	192 lbs.
Prunes	25 lbs.
Raisins	75,540 lbs.
Strawberries	492,667 lbs.
Fruit, crushed	3,000 lbs.
Fruit, dried	659,462 lbs.
Fruit, frozen	143,401 lbs.
Fruit juice	9 bbls.
Fruit, preserved	279,302 lbs.
Fruit pulp	74,471 lbs.
Flour	7,744 lbs.
Grape Juice	219 bbls.
Headcheese	550 lbs.
Horseradish	117,385 lbs.
Lard	65,344 lbs.
Lemon and orange peel	3,259 lbs.
Meats:	
Beef	19,925 lbs.
Frozen meat	725,143 lbs.
Luncheon meat	1,550 lbs.
Miscellaneous	1,161,796 lbs.
Mutton	23,387 lbs.
Pickled meat	122,987 lbs.
Pork	107,594 lbs.
Reindeer meat	16,980 lbs.
Salted	66,978 lbs.
Sausage	600 lbs.
Veal	1,225 lbs.
Milk	237,002 lbs.
Mincemeat	6,718 lbs.
Molasses	3,795 lbs.
Mushrooms	12,493 lbs.
Nucoa	2,565 lbs.
Nut meats	335,308 lbs.
Nuts	81,956 lbs.
Oleo	3,764 lbs.
Pectin	33,295 lbs.
Poi	503 lbs.
Popcorn	1,600 lbs.
Poultry:	
Chickens	31,166 lbs.
Ducks	725 lbs.
Guinea hens	2,400 lbs.
Miscellaneous	1,510,251 lbs.
Squabs	425 lbs.
Turkeys	41,758 lbs.
Pulp	355,895 lbs.
Salt	6,627 lbs.
Sauerkraut	38,289 lbs.
Spices	950 lbs.
Vegetables:	
Beets	5,516 lbs.
Cabbage	28,880 lbs.
Celery	231,410 lbs.
Garlic	30,309 lbs.
Hops	11,136 lbs.
Miscellaneous	268,026 lbs.
Onions	18,950,428 lbs.
Peppers	135,250 lbs.
Potatoes	6,975,324 lbs.
Radishes	300 lbs.

REPORT FOR MAY, 1921.

Two hundred and fifty-six samples of foods, drugs and miscellaneous materials were received at the laboratory during the month of May.

Official.

Beverages	24
Bread	3
Catsup	7
Chocolate	2
Confectionery	13
Dairy foods	9
Extracts	4
Horseradish	1
Ice cream	4
Jams and jellies	18
Macaroni, noodles and spaghetti	19
Meat	17
Milk	1
Mustard, prepared	2
Nuts	5
Oil	4
Pickles	1
Sausage	4
Syrup	7
Water	2
Vinegar	4
	151

Miscellaneous—Official.

Special 77	1
Tankage	1
	2

Drugs.

Bitro phosphate	1
Cancer treatment	1
Camphorated oil	2
Citrate of magnesia	8
Elixir phosphate	1
Pills	1
	14

Unofficial.

Beverage		3
Catsup		8
Confectionery		2
Crackers		1
Eggs, frozen		1
Extracts		2
Fruit, canned		7
Ice cream		1
Jams and jellies		28
Milk		1
Miscellaneous		5
Carbon dust	1	
Diamalt	1	
Sauerkraut	1	
Chocolate shine	1	
Entservo	1	
Nuts		6
Syrup		1
Vegetables		3
Vinegar		1
Water		1
Tomato products		2
Coffee		1
		74

State Institutions.

Beverages	1
Butter	3
Cheese	1
Cream tartar	1
Flour	1
Paste	2
Spices	4
Syrup	2
	15

Total officials	167
Total unofficials	74
Total state institutions	15
Total	256

CASES REFERRED TO DISTRICT ATTORNEYS AT THE MAY MEETING.

Material	Offense	Dealer	Locality
Cider vinegar	Adulterated and mislabeled	Liberty Grocerteria	San Jose.
Citrate of magnesia	Adulterated	Hidalgo's Pharmacy	Los Angeles.
Eggs, one case	Adulterated and mislabeled	Fred L. Hilmer	San Francisco.
Fruit caramels	Adulterated and mislabeled	D. Semer	San Francisco.
Macaroni	Adulterated and mislabeled	Oakland Macaroni Company	Oakland.
Macaroonolas	Adulterated and mislabeled	California Macaroonola Company	San Francisco.
Maple fudge	Adulterated and mislabeled	Boston Confectionery	Los Angeles.
Milk	Adulterated and mislabeled	Mrs. S. Harris and E. B. Buine	Vallejo.
Milk	Adulterated and mislabeled	The Pippin Restaurant	Watsonville.
Noodles	Adulterated and mislabeled	Italian Macaroni Company	Oakland.
Noodles	Adulterated and mislabeled	Oakland Noodle Factory	Oakland.
Noodles	Adulterated and mislabeled	Oakland Macaroni Company	Oakland.
Orange juice	Adulterated and mislabeled	Bufton's Soft Drink Stand	Oakland.
Orange soda	Adulterated and mislabeled	Oriental Soda Works	San Jose.
Prepared mustard	Adulterated and mislabeled	James Mulryan and Company	San Francisco.
Raspberry and lemon drops	Adulterated and mislabeled	K. Shimizu	San Francisco.
Strawberry soda water	Adulterated and mislabeled	Victory Soda Works	San Francisco.
Rice polish	Adulterated	Pacific Rice Mills Company	San Francisco.
Soy bean noodles	Adulterated and mislabeled	Oakland Noodle Factory	Oakland.

CONVICTIONS UNDER FOODS AND DRUGS ACTS REPORTED DURING MAY, 1921.

Name of article	Offense	Accused dealer	Locality	Result
Cherry highball	Adulterated and mislabeled	Frank McBride	Sacramento	Fined $10.00.
Mocha coffee	Adulterated and mislabeled	H. E. Badger and Company	San Francisco	Sentence suspended.
Orange syrup	Adulterated and mislabeled	U. Salerno	San Jose	Fined $15.00.
Raspberry nut sundae	Adulterated and mislabeled	Frank McBride	Sacramento	Fined 10.00.
Tomatoes	Adulterated and mislabeled	John L. Silva and Geo. Souza	Centerville	Sentence suspended.
Tomato sauce	Adulterated and mislabeled	Hershel Cal. Fruit Products Co.	San Jose	Fined $50.00.
Tomato sauce	Adulterated and mislabeled	Hershel Cal. Fruit Products Co.	San Jose	Fined 50.00.
Tomato sauce	Adulterated and mislabeled	Hershel Cal. Fruit Products Co.	San Jose	Fined 50.00.
Tomato sauce	Adulterated and mislabeled	Hershel Cal. Fruit Products Co.	San Jose	Fined 50.00.

ARTICLES OF FOOD CONDEMNED UPON PHYSICAL AND CHEMICAL EXAMINATION AS UNFIT FOR FOOD—MAY, 1921.

Material	Amount	Condition	Locality	Disposition
Manchurian walnut meats	485 boxes, 50 lbs. each	Rancid	San Francisco	Chicken feed.
Pork sausages	10 lbs.	Decomposed	Roseville	Destroyed.
Tomato catsup	157 cases (24-16 ounces)	Decomposed	San Francisco	Destroyed.
Tomato catsup	67 cases (24- 8 ounces)	Decomposed	San Francisco	Destroyed.
Tomato catsup	274 cases (24-16 ounces)	Decomposed	San Francisco	Destroyed.
Tomato catsup	16 cases (24- 8 ounces)	Decomposed	San Francisco	Destroyed.
Tomato catsup	24 cases (24-16 ounces)	Decomposed	San Francisco	Destroyed.
Tomato catsup	89 cases (24- 8 ounces)	Decomposed	San Francisco	Destroyed.
Tomato sauce	69 cases (13,800 tins)	Decomposed	San Jose	Destroyed.

BUREAU OF CHILD HYGIENE.

REPORT FOR APRIL AND MAY, 1921.

ETHEL M. WATTERS, M. D., Director.

On April 21, 1921, a conference was held in Douglas, which is about twenty miles from Stockton. Miss Wills, the Home Demonstration Agent of San Joaquin County, and Miss Roush, the public health nurse, had labored long and earnestly with the people of this community to bring their children to the conference. In spite of their efforts there were only twelve little people for examination.

Much energy has been expended in preparation for the northern trip which includes Tehama, Shasta, Trinity, Siskiyou and Modoc Counties. Final plans have been completed and the itinerary of the trip is herewith attached. Miss Clary, Miss Greenhood, a dental hygienist, and the director leave San Francisco on Sunday, May 22, to be away for five weeks.

April 29 a talk was given to the San Francisco District Federation of Women's Clubs at Salinas.

The meetings of the State Medical Association were attended and it was noted that most of the sessions were greatly interested in endocrinology. The greatest benefit derived from this meeting at Coronado was the individual chats with various physicians.

May 13 and 14, following the Medical Association's meetings, the eighty children in the David and Margaret Home were examined. A detailed account of this survey accompanies this report.

Miss Clary, public health nurse, spent the early part of this time in obtaining information concerning the prenatal work of San Francisco and Oakland and in attendance at the nutrition conference held by the Tuberculosis Association with Mrs. Ira Couch Wood.

Conference at David and Margaret Home.

Physical examinations of the eighty children in the David and Margaret Home, La Verne, were begun May 13th and completed May 14, 1921. A detailed report of the physical findings is herewith attached. On the whole a finer group of children could hardly be found. Their general health and hygiene testified to the indefatigable care which the staff gives them, and their attitude made clear the affection which accompanies their routine treatment.

Only one child had poor posture and that one needs the attention of an orthopedic surgeon. Seventy-two showed good development and nutrition—eight showed fair nutrition—none poor. Of these eight children some were recently admitted.

There had been a recent epidemic of acute conjunctivitis among the children, many of whom were still under treatment and fourteen showed evidence. Thirteen children had weakened eye muscles allowing an internal strabismus of one or both eyes and these should receive care from an oculist.

One child had a discharging ear. Much has been done for this condition and the child is still under the care of a specialist.

It was remarkable that only eleven children had enlarged tonsils—some of these were newcomers and some of these do not need immediate attention.

Only nineteen had any defective teeth. All the children gave evidence of dental care and regular use of the tooth brush. Rarely has the oral hygiene of any group of children been so good.

One girl had an aggravated case of psoriasis and needs a dermatologist's advice.

At least 61 of the 80 children should have vaccination and it is recommended that the aid of the district health officers of the State Board of Health be enlisted so that these children may be protected from smallpox before they are taken away for vacation.

The fact that 36 children had enlarged thyroids is noted but so far the significance of this fact is unknown. Some of them in adolescent boys and girls are not indicative of any grave condition and the others will be watched from time to time. The enlargement of this gland has been seen in several parts of the State and it is hoped that definite research work will reveal the cause

It was a pleasure to examine these children, not only from the standpoint of their behavior but also from the hearty cooperation and interest manifested by the various members of the staff of the Home.

DAVID AND MARGARET HOME, LA VERNE, CALIFORNIA.

Medical Findings of Examinations Made May 13 and 14, 1921.

Number of children examined		80
Posture	Poor	1
	Fair	12
	Good	67
Nutrition	Fair	8
	Good	72
Eye	Recommended for refractions	2
	Blepharitis marginalis	2
	Exophthalmia	1
	Conjunctivitis	14
	Slight internal strabismus	13
Ear	Discharging	1
Nose and throat	Suspected adenoids	8
	Enlarged tonsils	11
	Pharyngitis	1
Mouth	Defective teeth	19
	Defective speech	3
Glands	Enlarged thyroid	36
	Enlarged cervical	25
Heart	Soft systolic murmur	2
Lungs	Slight dullness (right apex)	1
Skin	Popular rash	1
	Psoriasis	1
Developmental abnormalities	Weakened longitudinal arch	8
	Slight functional scoliosis	2
	Pigeon breast	1
	Funnel shaped breast	2
	Slight atrophy of left leg	1
Vaccination	Never vaccinated	61
	Unsuccessfully vaccinated (no scar)	2
	Successfully vaccinated (scar)	7

PRENATAL WORK IN SAN FRANCISCO AND OAKLAND.

MARY K. CLARY, Public Health Nurse.

In view of the fact that the Federal questionnaire which was sent out from this office a few weeks ago showed a woeful lack of prenatal care in the small towns, it was thought advisable to investigate the clinics conducted in the larger centers. A careful inquiry was made of all hospitals having obstetrical service in the bay region. Considering the fact that about one-third of the total population of this State is centered in the bay region, the prenatal care afforded patients outside the doctors' offices is most inadequate and provision in the future must include larger obstetrical hospitals and greater outside facilities as well as a larger staff. Much educational work must be accomplished in order that prospective mothers recognize the necessity for good care during pregnancy and the puerperium.

The University of California Hospital conducts a large maternity clinic which feeds the hospital wards. An occasional case is delivered in the home of the patient but it is an invariable rule that none of these be primapara. One public health nurse is detailed to visit each prenatal case in her home at least once in two weeks and the patient is expected to visit the clinic once in two weeks. This service is caring for a large number of patients, having had about forty deliveries during March. A well baby conference is also conducted in connection with the clinics and all cases are referred to it for supervision.

The Mount Zion Hospital conducts a regular weekly maternity clinic. The prenatal visiting is, of necessity, very limited as it is done by a social worker who also cares for all the general clinic cases.

The Mary's Help Maternity clinic has no outside social service for their prenatal cases.

St. Luke's Health Center is conducting a weekly maternity clinic which acts as a feeder for the San Francisco Hospital. The social service investigations are done by the Associated Charites worker.

Stanford Medical School conducts a daily maternity clinic to which patients report every two weeks during the prenatal period. On each Wednesday afternoon a class for expectant mothers is also conducted. If a patient fails to report on her regular clinic day a follow-up card is mailed to her and that failing to procure a response the clinic nurse makes a home visit.

Many of the deliveries are performed in the home at a fee of $10. During March the records show twelve deliveries and they now have some sixty expectant cases in the files. The mother reports back for examination at the end of six weeks after delivery. Each baby is referred to the well baby conference and the mother is expected to keep the baby under observation at least once a month.

Stanford Medical School has a growing service and the outside deliveries have been re-established quite recently. The new social service director will further this work and the coming year should show marked increase in interest and numbers.

The Children's Hospital has fewer service patients than a few years ago. The prenatal care is excellent and the patients are well satisfied. No patient is admitted unless she agrees to be delivered in the hospital.

The Oakland Baby Hospital has a weekly maternity clinic with the deliveries performed in the home of the patient at a $15 fee—$5 of which goes to the doctor. Two nurses are engaged in the actual maternity care. One attends the clinic and assists at deliveries. The other does the post-partem care which consists in daily attention to mother and child for ten days. No patient is discharged until the mother has bathed the child at least twice in the presence of the nurse. During the prenatal period the district nurses visit each case (normal) once a week and those that show evidences of abnormalities every day.

BUREAU OF REGISTRATION OF NURSES.

REPORT FOR APRIL AND MAY, 1921.

ANNA C. JAMME, Director.

Changes in Nurse Registration Act.

The recent legislature has made certain changes in the act providing for the examination and registration for graduate nurses. The object of the act is to fix standards for schools of nursing, the course of instruction for students of nursing, also requirements for examination and registration of graduate nurses and the issuance of a certificate as "Registered Nurse" to graduates in nursing. The act has been amended in five main points:

1. Establishing qualifications for applicants for examination as to age, preliminary education, and course of instruction in an accredited school.

The age of the applicant is specified, namely, 20 years; the preliminary education must be satisfactory to the board; the course of instruction must include teaching and experience in the care of medical, surgical, obstetrical patients and sick children and must cover a period of twenty-eight months in the actual instruction and care of medical, surgical and obstetrical patients and sick children. The period of training has been reduced from three years to twenty-eight months. This does not, as has been affirmed, lower the standard or type of instruction required. The curriculum will remain the same, or very nearly so, but the length of practice work is shortened and only that pertaining to actual nursing instruction given. The level of instruction will be raised, not by increasing subjects or hours of classwork, but by giving a more suitable type of teaching for students of nursing and by the use of good methods of teaching.

2. Requirements for accredited schools of nursing.

Accredited schools of nursing will, as formerly, be required to be attached to, or operated in connection with, a hospital or hospitals; the subjects, number of hours of instruction in each subject, and the arrangement of the order of instruction is determined by the board. Schools which will maintain a course exceeding twenty-eight months will provide additional instruction as shall be required by the board.

3. Raising the Registration fee from $10 to $15.

The Bureau is self-supporting, having no State appropriation, and is dependent upon the fees of applicants for examination and registration. The $10 fee heretofore has been inadequate to maintain, in full, the expenses of the Bureau.

4. Annual Renewal of Registration.

To establish and publish a list of registered nurses with their addresses, which will be authentic and up to date each year.

5. Changing Reciprocity section.

This is in order to enable nurses who are registered in other states and who meet the requirements of this State to be re-registered without examination, irrespective of the requirements of the laws of the state under which such nurses were previously registered. This provision has been most necessary as heretofore nurses, who have fully met the requirements in this State, have been unable to be registered without examination, owing to the fact that the law of the state under which they were registered did not conform with the law of this State.

There are at present 68 accredited schools of nursing in the State and about 2782 students in training. There is capacity for approximately 500 more. The schools, on the whole, are well prepared to carry on a good course of instruction and training. The number of nurse instructors is increasing but there is, as yet, need for many more. Equipment, such as proper classrooms, lecture rooms, laboratories and other teaching facilities, are found in about every accredited school in varying degrees of perfection. A well equipped demonstration room for teaching nursing procedures is now a part of every school. There is an increased opportunity for affiliations in services where the hospital is unable to supply the needed experience, notably, in the care of tubercular patients, sick children and communicable diseases. The students are, as a general rule, comfortably housed and in many cases there are fine nurses' residences. The social surroundings of the students are given greater attention and in many schools a very good form of student government is carried on. There is, as yet, a greater need of more careful selection of applicants and better support of good qualifications for admission and weeding out of the unfit during the early part of the course.

List of Diseases Reportable by Law

ANTHRAX
BERI-BERI
CEREBROSPINAL MENINGITIS (Epidemic)
CHICKENPOX
CHOLERA, ASIATIC
DENGUE
DIPHTHERIA
DYSENTERY
ENCEPHALITIS (Epidemic)
ERYSIPELAS
GERMAN MEASLES
GLANDERS
* GONOCOCCUS INFECTION
HOOKWORM
INFLUENZA
LEPROSY
MALARIA
MEASLES
MUMPS
OPHTHALMIA NEONATORUM
PARATYPHOID FEVER
PELLAGRA
PLAGUE
PNEUMONIA (Lobar)
POLIOMYELITIS
RABIES
ROCKY MOUNTAIN SPOTTED (or Tick) FEVER
SCARLET FEVER
SMALLPOX
* SYPHILIS
TETANUS
TRACHOMA
TUBERCULOSIS
TYPHOID FEVER
TYPHUS FEVER
WHOOPING COUGH
YELLOW FEVER

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* Reported by office number. Name and address not required.

Quarantinable Diseases

CEREBROSPINAL MENINGITIS (Epidemic)
CHOLERA, ASIATIC
DIPHTHERIA
LEPROSY
PLAGUE
POLIOMYELITIS
SCARLET FEVER
SMALLPOX
TYPHUS FEVER
YELLOW FEVER

Section 16, Public Health Act. All physicians, nurses, clergymen, attendants, owners, proprietors, managers, employees, and persons living in or visiting any sick person in any hotel, lodging house, house, building, office, structure, or other place where any person shall be ill of any infectious, contagious, or communicable disease, shall promptly report such fact to the county, city and county, city, or other local health board or health officer, together with the name of the person, if known, and place where such person is confined, and nature of the disease, if known.

"The health of the people is really the foundation upon which all their happiness and all their powers as a nation depend; but if the population of that country is stationary or yearly diminishes in stature and strength, that country is doomed."

—LORD BEACONSFIELD.

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